

Western Area Power Administration

PICK-SLOAN MISSOURI BASIN PROGRAM

Proposed Power Rate Adjustment

Customer Brochure

March 1991



STATE DOCUMENTS COLLECTION

MAR 2 2005

MONTANA STATE LIBR.
1515 E. 6th AVE.
HELENA, MONTANA 59601

Montana State Library



3 0864 1003 3853 5

WESTERN AREA POWER ADMINISTRATION

PICK-SLOAN MISSOURI BASIN PROGRAM

POWER RATE ADJUSTMENT

CUSTOMER BROCHURE

MARCH 1991

TABLE OF CONTENTS

	Page
I. INTRODUCTION	4
II. RATE ADJUSTMENT PROCEDURES	5
III. POWER REPAYMENT STUDY	7
A. Study Analysis.	7
1. O&M Expenses.	8
2. Purchased Power Projections.	8
3. Rapidly Increasing Deficits of \$63 Million.	8
B. Other Discussion Issues.	9
C. FY 1990 PRS	10
D. FY 1991 PRS	13
E. Summary	14
IV. RATE DESIGN	14
A. Western Division	14
B. Eastern Division	15
V. ENVIRONMENTAL COMPLIANCE	17
VI. REGULATORY FLEXIBILITY ACT OF 1980	18
APPENDIX A (PROJECT HISTORY)	19
APPENDIX B (HYDROLOGY AND MARKETING CRITERIA)	25
A. General	26
B. Eastern Division Hydrology and Marketing Criteria	26
C. Western Division Hydrology and Marketing Criteria	30
APPENDIX C (POWER REPAYMENT STUDY)	32
A. General History	33
B. General Description of PRS	33
C. Study Elements	34
APPENDIX D (SUBALLOCATION OF POWER SYSTEM COSTS TO IRRIGATION)	42
APPENDIX E (EXECUTIVE SUMMARY)	46
Power Repayment Study FY 1990	47
Power Repayment Study FY 1991	51
APPENDIX F (DETAIL OF OTHER REVENUES AND O&M EXPENSES)	55
Projected Other Revenue from the FY 1990 PRS	56
Projected Other Revenue from the FY 1991 PRS	57
Projected O&M Expenses from the FY 1990 PRS	58
Projected O&M Expenses from the FY 1991 PRS	59
APPENDIX G (FEDERAL REGISTER NOTICE)	60

LIST OF TABLES

	Page
P-SMBP Firm Commercial revenue requirements	15
EASTERN DIVISION PROPOSED RATE CHANGES	17
Missouri River Basin Power System	24
Missouri River Natural Flow and System Storage	29
Historic Western Division Inflows	31
EXISTING P-SMBP IRRIGATION PROJECTS	40
TOTAL IRRIGATION AID REQUIREMENTS FOR P-SMBP	41
Project Use pumping requirements	44
POWERPLANT AND GENERATION DATA	45

I. INTRODUCTION

The Western Area Power Administration (Western) is providing information on the proposed power rate adjustment of the Pick-Sloan Missouri Basin Program (P-SMBP) in this brochure. Public information and public comment forums will be held during the consultation and comment period, discussed in Section II, to provide additional information and to receive comments from interested persons. After the consultation and comment period and review of oral and written comments, the Administrator of Western will develop a power rate, which will be submitted to the Deputy Secretary of the Department of Energy (DOE) to confirm, approve, and place into effect on an interim basis and to submit to the Federal Energy Regulatory Commission (FERC) to confirm, approve and place in effect on a final basis. The decision will be announced to the public along with an explanation of the principal factors leading to the decision.

The fiscal year (FY) 1990 Power Repayment Study (PRS) has been completed and shows that existing power rates are not adequate to meet repayment requirements. To meet those requirements the composite rate for firm power is proposed to be increased by 1.39 mills/kwh beginning in October 1991. This increase is referred to as Step One. In addition, a study referred to as the FY 1991 PRS, which incorporates this 1.39 mills/kwh increase in FY 1992 as well as certain assumed values, has also been completed. That study indicates a need for an additional increase in the composite rate of 0.91 mills/kwh beginning in October 1992 (Step Two). The FY 1991 PRS incorporates the results of the FY 1990 PRS and would be used as the basis for a two step rate

increase. Each of the studies will be discussed later in this brochure.

The three major factors contributing to the need for the rate adjustment are as follows:

1. Increases in operation and maintenance (O&M) expenses.
2. Addition of purchased power projections, reduced surplus sales and a longer recovery period from the drought.
3. Rapidly increasing deficits.

Detailed discussions regarding these three major factors are contained in the Study Analysis section of this brochure.

The impact of increasing the wholesale firm power rate will vary for each customer depending on individual customer load characteristics. Furthermore, the overall effect on the retail customer is proportional to the amount of power furnished by Western relative to their supplemental supply.

II. RATE ADJUSTMENT PROCEDURES

The formal consultation and comment period will begin with the publication of a notice in the FEDERAL REGISTER and will end 90 days thereafter. Public information forums, during which Western will explain the need for the increase and answer questions, will be held at the following places and times:

March 25, 1991 - 9:00 AM Sheraton Hotel, Billings, Montana
March 25, 1991 - 2:00 PM Holiday Inn, Northglenn, Colorado
March 26, 1991 - 8:00 AM Holiday Inn Airport, Sioux Falls, South Dakota
March 26, 1991 - 1:30 PM Holiday Inn, Fargo, North Dakota

Public comment forums, during which comments for the record concerning the proposed rate increase will be accepted, will be conducted at the following

places and times:

April 16, 1991 - 9:00 AM Holiday Inn, Northglenn, Colorado

April 17, 1991 - 2:00 PM Ramkota Inn, Sioux Falls, South Dakota

Individuals planning to speak at either the March or April forums should send their request with their name and organization affiliation to the address below one week before each meeting so that a speaker list can be prepared.

Requests should be mailed to:

Mr. James D. Davies
Area Manager
Billings Area Office
Western Area Power Administration
P.O. Box 35800
Billings, MT 59107-5800
Telephone: (406) 657-6532

Supplementary Information

Power rates for the P-SMBP are established pursuant to the Department of Energy Organization Act, 42 U.S.C. 7101, et seq.; the Reclamation Act, 43 U.S.C. 372, et seq., as amended and supplemented by subsequent enactments, particularly section 9(c) of the Reclamation Project Act of 1939, 43 U.S.C. 485h,(c); section 9 of the Flood Control Act of 1944, 58 Stat. 887; and other acts specifically applicable to the project system involved.

By Delegation Order No. 0204-108, effective December 14, 1983 (48 FR 55664), as amended May 30, 1986 (51 FR 19744), reassigned by DOE Notice 1110.29 dated October 27, 1988, and clarified by Secretary of Energy Notice SEN-10-89 dated August 3, 1989, and subsequent revisions, the Secretary of Energy delegated: (1) to the Administrator of Western the authority, on a non-exclusive basis, to develop long-term power and transmission rates; (2) to the Deputy Secretary of DOE the authority to confirm, approve, and place such rates in effect on an

interim basis; (3) and to the FERC the authority to confirm, approve, and place in effect on a final basis, or remand, or disapprove such rates.

Existing DOE procedures for public participation in power rate adjustments (10 CFR Part 903) became effective on September 18, 1985 (50 CFR 37835). Power rate adjustments for the P-SMBP firm power rates are conducted consistent with 10 CFR Part 903.

III. POWER REPAYMENT STUDY

A. Study Analysis.

The PRS is used to determine if power revenues are sufficient to pay all of the project costs allocated to power for repayment within prescribed time periods. The PRS first applies revenue to payment of total annual expenses (O&M expense, interest expense, integrated projects expense and purchased power expense). Secondly, revenues are applied to all required payments for the power investments, replacements and aid to irrigation. Third, revenues are applied to repay the remaining investments and aid to irrigation beginning with the investments having the highest interest rate. In a year when revenues do not cover the total annual expenses, a deficit is incurred for that year. Deficits have been incurred in FY 1989 and FY 1990. Additional deficits are projected for FY 1991 and FY 1992. These increased deficits are one of the three major factors contributing to this rate adjustment; increased O&M expenses and purchased power being the other two. The following is a discussion of each of these three major factors:

1. O&M Expenses.

Beginning with the 6th projected year of study, the O&M costs in the FY 1990 PRS increased 8 percent over the 6th year in the FY 1989 PRS. O&M increases in future budgets reflect increased concern for environmental and safety issues. Much of our O&M is being performed on an aging woodpole transmission system requiring additional safety precautions and a higher incidence of maintenance. In addition, many of our substation facilities have been in service for a long time and we are evaluating them for existing environmental hazards or problems. Much of the heavy equipment used to maintain the system is also approaching the need for replacement.

2. Purchased Power Projections.

The continuation of the drought condition reduces the generation available for firm power sales, decreases the revenue from surplus energy sales and increases the need to purchase power to meet firm power contract commitments. Future purchased power amounts are now significant. Estimates of future year purchased power expenses can be made on the basis of Corps generation data. Purchased power for FY 1991 is projected in the FY 1990 PRS to be \$29 million with an additional \$25 million projected for FY 1992.

3. Rapidly Increasing Deficits of \$63 Million.

Significant deficits have accrued in FY 1989 and FY 1990.

Deficits will increase to about \$100 million by the end of FY 1991. If the drought continues and purchased power costs are not projected in current and future PRS's these deficits will continue to increase even more rapidly.

B. Other Discussion Issues.

The following discussion includes both old and new issues and their treatment in the PRS:

1. Western and the Corps of Engineers (Corps) do not agree upon the assignment of multipurpose O&M expenses to the power function. For the FY 1990 PRS, Western has adjusted the O&M figures supplied by the Corps to conform with Western's interpretation of the law regarding assignment of multipurpose O&M expenses. Western has reduced the Corps figures to an assignment of multipurpose O&M expenses based upon ultimate development percentages instead of current use percentages.
2. The actual impact to cost allocations due to the Garrison Diversion Unit Reformulation Act of 1986 has not been finalized. We continue to use the estimated \$87 million of additional 2.5% power investment in the PRS. This amount has been agreed to by the Corps, Western and the Bureau, until finalized.
3. Irrigation pumping power is sold to irrigation districts throughout the basin under the Bureau Rate Schedule MRB-P10 at 2.5

mills/kWh. Western has formally requested the Bureau to review the rate. The Bureau Solicitor has stated that "an ability to pay" assessment needs to be performed to address the matter.

4. In the previous rate adjustment the Loveland Area Office (LAO) increased its transmission rates. LAO has also executed other transmission agreements. All of these additional revenues are reflected in this PRS.
5. The Eastern Division peaking rate is keyed to the capacity charge for the firm power rate. In the new rate design we included the revenues obtained from peaking in determining a 50/50 "split" for capacity and energy revenues. This consideration tends to reduce the impact on the capacity charge and thus the peaking rate, however, the energy charge is impacted to a greater degree. The "ratchet" method of billing for peaking is not proposed to be changed.
6. The interest rate for the Buffalo Bill modifications has been finalized under the terms of the contract at 11.07%.

C. FY 1990 PRS

In preparing the FY 1990 PRS several modifications to the FY 1989 PRS were necessary. In addition inputting the actual data for FY 1990 as a historical year, the other changes to the previous PRS (FY 1989) are as follows:

1. Audit adjustments made to FY 1989 data -- This is a change in the treatment of plant contributed by outside entities to the Federal facilities. Prior to this study, contributed plant items were accounted for in the power system investments with offsetting annual revenues. Revenue of \$18 million and equivalent investment costs have been deleted in the FY 1990 PRS. This has a minor rate impact.
2. Revised replacements for woodpole construction -- A computerized program calculates the replacement of all power system investments on the basis of service life grouping. The computer program begins projecting system replacements in the sixth future year of each power repayment study. The first five future years of replacements are included in the budget data utilized in any given PRS. When data was loaded into the new replacements program utilized in the FY 1989 PRS, all existing transmission structures were entered as steel structures. However, a large number of P-SMBP structures are woodpole. Woodpole data was incorporated into the FY 1990 PRS to appropriately reflect service life group replacement costs. The net effect was an additional \$679 million in system replacement costs above what was included in the FY 1989 PRS. This has no rate impact since the revenue is required in years beyond the "pinch point" of the study.
3. Interest Rate change -- Based upon information from the U.S. Treasury, the interest rate applicable to FY 1991 and future power

system investments is reduced slightly from last year's value (from 8.875% to 8.75%). This revised rate is also applied to future power system replacements.

4. Power system investments increased \$28 million between the FY 1989 PRS to the FY 1990 PRS; \$14 million is related to the new work at Fort Peck power plant number one.
5. JTS revenue increases -- The new transmission rate for the Joint Transmission System became effective in FY 1991 and an increase of about \$6 million per year is reflected in the system revenue.
6. Western Division Transmission revenues -- The rate for Western Division transmission service has been increased. In addition new transmission contracts have been signed. This has brought additional revenue of \$285 million into the PRS.
7. Purchased power projected in the FY 1990 PRS -- As discussed earlier purchased power expenses have been projected for FY 1991 and FY 1992. These are significant amounts, but are realistic in view of previous years expenditure and present water conditions.

The above changes to the FY 1989 PRS result in a proposed increase in the composite rate of 1.39 mills/kwh to become effective October 1991.

D. FY 1991 PRS

The FY 1991 PRS was prepared, utilizing the FY 1990 PRS as a base.

These considerations are discussed as follows:

1. The best available projection of the impact of the drought on purchased power and any surplus power sales can be determined from the hydrology data of the Corps and the Bureau. Therefore, we used the basic Corps projection of generation for the year FY 1991 and the projected generation from their median inflow projection for the future years FY 1992 - FY 1996. Using this data we determined the needed purchases of firming energy for each of those years as well as the relatively small amount of surplus energy sales that may be expected.
2. O&M expenses for the study period were increased by 5%.
3. Western has been informed by the Office of Personnel Management that the Civil Service Retirement Service amount for all of Western which was unfunded for the current year is about \$4.5 million. As no new Federal employees are included under that system, the unfunded amount will decline as more of the personnel under that system retire. We have determined the P-SMBP portion of the \$4.5 million to be about \$1.9 million; declining to zero in twenty years. Therefore, we have added \$1.9 million to O&M expense in FY 1992 and a reduced amount in each year through FY 2011, to provide for this added cost.

4. The resultant 1.39 mills/kwh rate increase from the FY 1990 PRS was utilized as the rate in effect for FY 1992.

The FY 1991 PRS, incorporating the above features, indicates a need for a composite rate increase of 0.91 mills/kwh to become effective in October 1992.

E. Summary

The existing rate for P-SMBP is based upon the rate which became effective October 1990. The first increment of the composite rate increase of 1.39 mills/kwh, is proposed to become effective October 1991, and the second incremental composite rate increase of 0.91 mills/kwh in October 1992.

IV. RATE DESIGN

A. Western Division

A Western Division rate design will not be shown in this brochure. A separate rate adjustment will be processed by LAO which will include the P-SMBP Western Division revenue requirements shown below:

	<u>STEP 1</u> <u>(FY 1992)</u>	<u>STEP 2</u> <u>(FY 1993)</u>
Existing Revenue Requirement	\$23,271,480	\$26,101,520
<u>Additional Revenue Requirements</u>	<u>\$ 2,830,040</u>	<u>\$ 1,852,760</u>
P-SMBP Western Div. Revenue Requirement	\$26,101,520	\$27,954,280

This revenue requirement will be combined with the revenue requirements

for the Fryingpan-Arkansas Project to design a blended rate for the Loveland Area Projects.

B. Eastern Division

The P-SMBP Firm Commercial revenue requirements are as follows:

STEP 1
(FY 1992)

Commercial Firm Sales (FY 1992)	\$120,177,760
Western Division Revenue Requirement	\$ 26,101,520
Eastern Division Revenue Requirement	\$ 94,076,240
Eastern Division Energy FY 1992	8,360 gWh
Eastern Division Composite Yield	11.25 mills/kWh

STEP 2
(FY 1993)

Commercial Firm Sales (FY 1993)	\$129,638,120
Western Division Revenue Requirement	\$ 27,954,280
Eastern Division Revenue Requirement	\$101,683,840
Eastern Division Energy FY 1993	8,360 gWh
Eastern Division Composite Yield	12.16 mills/kWh

The proposed new firm power rate has been designed as follows:

1. Increase the monthly capacity charge from \$2.25/kW-month to \$2.57/kW-month in Step One and from \$2.57/kW-month to \$2.74/kW-month in Step Two.
2. Change the monthly energy charge from 5.57 mills/kWh to 6.49 mills/kWh in Step One for all energy delivered as firm power service and from 6.49 mills/kWh to 7.09 mills/kWh in Step Two. For all energy delivered as firm power service which is in excess of 60% monthly load factor the additional charge of 3.38 mills/kWh

will remain the same.

3. The 5% voltage discount and the criteria for granting the discount will not change.

A new peaking power rate schedule is proposed as follows:

1. Increase the monthly capacity charge from \$2.25/kW of the effective contract rate of delivery to \$2.57/kW of the effective contract rate of delivery in Step One and from \$2.57/kW of the effective contract rate of delivery to \$2.74/kW of the effective contract rate of delivery in Step Two.
2. Increase the energy charge (for energy which is not returned) from 5.57 mills/kWh to 6.49 mills/kWh in Step One and from 6.49 mills/kWh to 7.09 mills/kWh in Step Two.

The additional charge for energy in excess of 60 percent load factor has not been increased from the existing 3.38 mills/kWh. The cost of energy in this area has remained relatively stable over the past couple of years, and is expected to increase only slightly in the near future. Studies indicate that the existing difference in rates is still adequate to meet our purchase requirements.

The types of load in the service area being so diverse results in customers with a wide range of monthly load factors and other characteristics. For the average firm power customer, this rate design results in approximately 44

percent of the revenue derived from the capacity charge and approximately 56 percent derived from the energy charge. However, when the revenues from peaking capacity sales are considered with this rate design; 50% of the revenue is received from capacity charges and 50% of the revenue is received from energy charges.

A summary of the proposed rates for the Eastern Division of P-SMBP is presented below:

EASTERN DIVISION PROPOSED RATE CHANGES

<u>Class of Power</u>	<u>Present Rate</u> (FY 1991)	<u>Proposed Rate</u> (FY 1992)	<u>Proposed Rate</u> (FY 1993)
Firm Power Service:			
Firm Capacity (kW)	\$2.25/kW-month	\$ 2.57/kW-month	\$ 2.74/kW-month
Firm Energy (kWh)	5.57 Mills/kWh	6.49 Mills/kWh	7.09 Mills/kWh
composite mills/kwh	9.86	11.25	12.16
Additional Charge for firm energy in excess of 60-percent monthly load factor	3.38 Mills/kWh	3.38 Mills/kWh	3.38 Mills/kWh
Firm Peaking Power Service:			
Peaking Capacity (kW)	\$13.50/kW-season	\$15.42/kW-season	\$16.44/kW-season
Peaking Energy (kWh)	5.57 Mills/kWh	6.49 Mills/kWh	7.09 Mills/kWh

V. ENVIRONMENTAL COMPLIANCE

In compliance with the National Environmental Policy Act of 1969 (NEPA), 42 U.S.C. 4321, et seq., Council on Environmental Quality regulations (40 CFR parts 1500-1508), and DOE guidelines published in the Federal Register on December 15, 1987 (52 FR 47662), Western will evaluate the proposed rate

adjustment and prepare the appropriate documentation of NEPA compliance.

VI. REGULATORY FLEXIBILITY ACT OF 1980

Pursuant to the Regulatory Flexibility Act of 1980, 5 U.S.C. 601, et seq., to publish a proposed rule, Western is required to prepare and make available for public comment an initial regulatory flexibility analysis to describe the impact of the proposed rule on small entities. In this instance, the rate adjustment relates to nonregulatory services provided by Western. Under 5 U.S.C. 601(2), rates or services of particular applicability are not considered rules within the meaning of the Act. Since the rate is of limited applicability and is being set in accordance with specific regulations and legislation under particular circumstances, Western believes no flexibility analysis is required.

APPENDIX A (PROJECT HISTORY)

March 1991

PROJECT DESCRIPTION

The initial stages of the Missouri River Basin Project (MRB) were authorized by Section 9 of the Flood Control Act of December 22, 1944 (58 Stat. 887, Public Law 534, 78th Congress, 2nd session), which approved the general comprehensive plan set forth in Senate Document 191 and House Document 475, as revised and coordinated by Senate Document 247, 78th Congress. The comprehensive plan has been funded through numerous appropriation acts with the intention of providing multipurpose development of the water resources in the Missouri River Basin.

The MRB, later renamed Pick-Sloan Missouri Basin Program (P-SMBP) to honor its two principal authors, has been under construction since 1944. The P-SMBP encompasses a comprehensive program of flood control, navigation improvement, irrigation, municipal and industrial water development, and hydroelectric production for the entire Missouri River Basin. Multipurpose projects have been developed on the Missouri River and its tributaries in Colorado, Montana, Nebraska, North Dakota, South Dakota and Wyoming. Electric transmission facilities have also been constructed in those states, as well as in Iowa, Minnesota, and Missouri. In addition to the multipurpose water development units in the Missouri River Basin which were authorized by Section 9 of the Flood Control Act of 1944, certain other existing projects have been integrated with the P-SMBP for power marketing, operation, and repayment purposes. The Colorado-Big Thompson, Kendrick, and Shoshone Projects were combined with the P-SMBP in 1954, followed by the North Platte Project in 1959. These Projects are known as the "Integrated Projects" of the P-SMBP. The Flood Control Act of 1944 authorized the inclusion of the Fort Peck

Project with the P-SMBP for operation and repayment purposes. The Riverton Project was integrated with P-SMBP in 1954, and in 1970 was reauthorized as a unit of P-SMBP.

The P-SMBP has been heralded since its authorization as a pioneer in comprehensive basin-wide multipurpose development. All functions of the Program were maximized within the water resource, with some functions (i.e., power) assisting others (i.e., irrigation) with repayment of costs beyond the ability of the beneficiaries to repay. An innovative feature of the Program was its basin-wide, rather than individual project, financial management mandate which affected the scope of financial assistance to irrigation and established that repayment of all features be based on ultimate development of the Program.

Power, flood control, and navigation are the most advanced features and have been providing benefits to the basin states for many years. Upper basin states have received Federal hydropower since 1922 in the Western Division and since 1943 in the Eastern Division, and downstream states have received flood control and navigation benefits. The federal irrigation units which were included in the comprehensive plan to replace land lost to Program reservoirs in the upper basin states have yet to be developed to a comparable extent. The irrigation units presently existing in the Program are shown Appendix D.

The planning, development, and operation of the P-SMBP have been successfully carried out for approximately 45 years by the Department of the Interior, the Corps, and most recently, the Department of Energy. The success of the P-SMBP

can be attributed to sound financial management, wherein power rates and costs have been carefully monitored and adjustments made, as necessary, to meet repayment obligations.

Western's activity associated with the P-SMBP is administered by two Area Offices (see Figure 1), one located in Billings, Montana, and the other in Loveland, Colorado. There are two separate large power systems in the P-SMBP. The Eastern Division, administered by the Billings Area Office (BAO), markets power in western Iowa, western Minnesota, Montana east of the Continental Divide, North Dakota, South Dakota, and the eastern two-thirds of Nebraska and is responsible for the O&M of more than 7,600 miles of high-voltage transmission lines and about 95 substations serving approximately 275 customers. The Western Division, administered by the Loveland Area Office, markets power in northeastern Colorado, east of the Continental Divide in Wyoming, west of the 101st meridian in Nebraska and northern Kansas, and is responsible for the O&M of about 3,300 miles of high-voltage transmission lines and 75 substations serving approximately 50 customers. Both the Eastern and Western Division systems have common electrical facilities at Yellowtail Dam in Montana and at Wayside Substation, NE; however, they are separate systems. The two divisions have different generation resources, market separate allocations of firm power, are connected electrically only through the use of D.C. ties, and have separate rate structures. Nevertheless, they are both part of one authorized project (i.e., P-SMBP), and both must contribute revenue to repay P-SMBP expenses and investments. Therefore, it is necessary to run a single PRS to determine the financial position of the P-SMBP.

The Corps and the Bureau are responsible for the O&M of their respective hydroelectric and switchyard facilities. The Corps power plants consist of Fort Peck, Garrison, Oahe, Big Bend, Fort Randall, and Gavins Point. The total output from these powerplants is 2,098,000 kW from a total of 36 separate generating units. The Bureau, Great Plains Region, powerplants are Canyon Ferry, Yellowtail, Boysen, Pilot Butte, Glendo, Kortes, and Fremont Canyon with a total output of 424,600 kW from 17 generating units. In addition, the Bureau operates the Integrated Project powerplants; Green Mountain, Mary's Lake, Estes, Pole Hill, Flatiron, Big Thompson, Alcova, Seminoe, Guernsey, and Heart Mountain.

EXISTING GENERATING PLANTS, FEDERALLY OWNED

MISSOURI RIVER BASIN POWER SYSTEM

NAME PLATE RATING IN MW

MONTANA

- 1 Canyon Ferry
- 2 Ft Peck
- 3 Yellowstone

WYOMING

- 1 Alcova
- 2 Boyden
- 3 Fremont Canyon
- 4 Glendo
- 5 Guernsey
- 6 Heart Mountain
- 7 Kortes
- 8 Seminole
- 9 Buffalo Bill

COLORADO

- 1 Big Thompson
- 2 Estes
- 3 Floritan
- 4 Green Mountain
- 5 Marys Lake
- 6 Polehill

NORTH DAKOTA

- 1 Garrison

SOUTH DAKOTA

- 1 Big Bend
- 2 Fort Randall
- 3 Gavins Point
- 4 Oahe

GENERATING PLANTS

- BUREAU OF RECLAMATION
U S ARMY ENGINEERS

TRANSMISSION LINES

- PICK-SLOAN MISSOURI BASIN PROGRAM^a
OTHER WAPA
(1) NORTH DAKOTA PORTION OWNED BY MONTANA-DAKOTA UTILITIES CO
(2) DOUBLE CIRCUIT LINES

^a Includes Facilities of the Pick-Sloan Missouri Basin Program and the Integrated Projects (Ft Peck, Colorado - Big Thompson, Kendrick, North Platte and Shoshone)

SCALE IN MILES

UNITED STATES
DEPARTMENT OF ENERGY
WESTERN AREA POWER ADMINISTRATION

Revised OCTOBER, 1968

Figure 1

APPENDIX B (HYDROLOGY AND MARKETING CRITERIA)

March 1991

HYDROLOGY AND MARKETING CRITERIA

A. General

Water conditions of the rivers and streams on which the P-SMBP multipurpose features are located determine the amount of power which is available and the amount of energy that can be produced and sold by the Eastern and Western Division power systems in any given year, up to the limit of the generating capacity. The Eastern and Western Divisions' long-range annual firm power sales are about 8.0 and 2.0 billion kilowatt-hours, respectively.

B. Eastern Division Hydrology and Marketing Criteria

The bar graph in Figure 1 shows the Eastern Division system natural inflow in millions of acre-feet measured at Sioux City, Iowa, by years for the period 1898-1989. The bar graph indicates that the Eastern Division experiences a wide range of water conditions. The Missouri River inflow above Sioux City has varied from a low of 10.6 million acre-feet (MAF) in 1931 to a high of 40.6 MAF in 1978. Median inflow is 25.0 MAF, with upper quartile and lower quartile inflows at 30.1 MAF and 19.8 MAF, respectively.

The marketing of firm power in the Eastern Division is based on Western's Post-1985 Marketing Plan. The Post-1985 Marketing Plan uses the adverse water conditions which occurred in 1961 as the basis for firm capacity sales. This ensures that we have adequate hydro generation to meet our firm capacity commitment under all but the most extreme water conditions. The firm energy which is marketed with capacity is that which is

available with long-term average water conditions. Over the study period, better than average water conditions can be expected to occur about half the time, and less than average water conditions about half the time.

Current reservoir conditions on the Missouri River (River) reflect a series of drought years. The inflow to the River above Sioux City, Iowa, in 1988 was only 12.5 million acre feet (MAF) (about 50% of the long-term average); in 1989 this was 17.9 MAF (about 72% of the long-term average); and in 1990 17.2 MAF (about 69%). Storage in the reservoir system on March 1, 1991, was 41.5 MAF. Ideally, the reservoirs would contain about 59 MAF by March 1. Current estimates indicate that with median inflow it will take more than 6 years to refill the reservoir system to the top of multipurpose storage.

Besides the varying water supply, which is an unpredictable factor determined by nature, the River is subject to increasing depletions as water is taken out for municipal water supplies, irrigation, and industrial development. The effects of the depletions are taken into account in the Corps Main Stem Reservoir Regulation Studies; the last being Series 8-83.

The Eastern Division markets firm capacity and energy to approximately 275 preference customers that operate inside the Eastern Division marketing area. These preference customers are made up of municipal power systems, rural electric cooperatives, public power districts, State

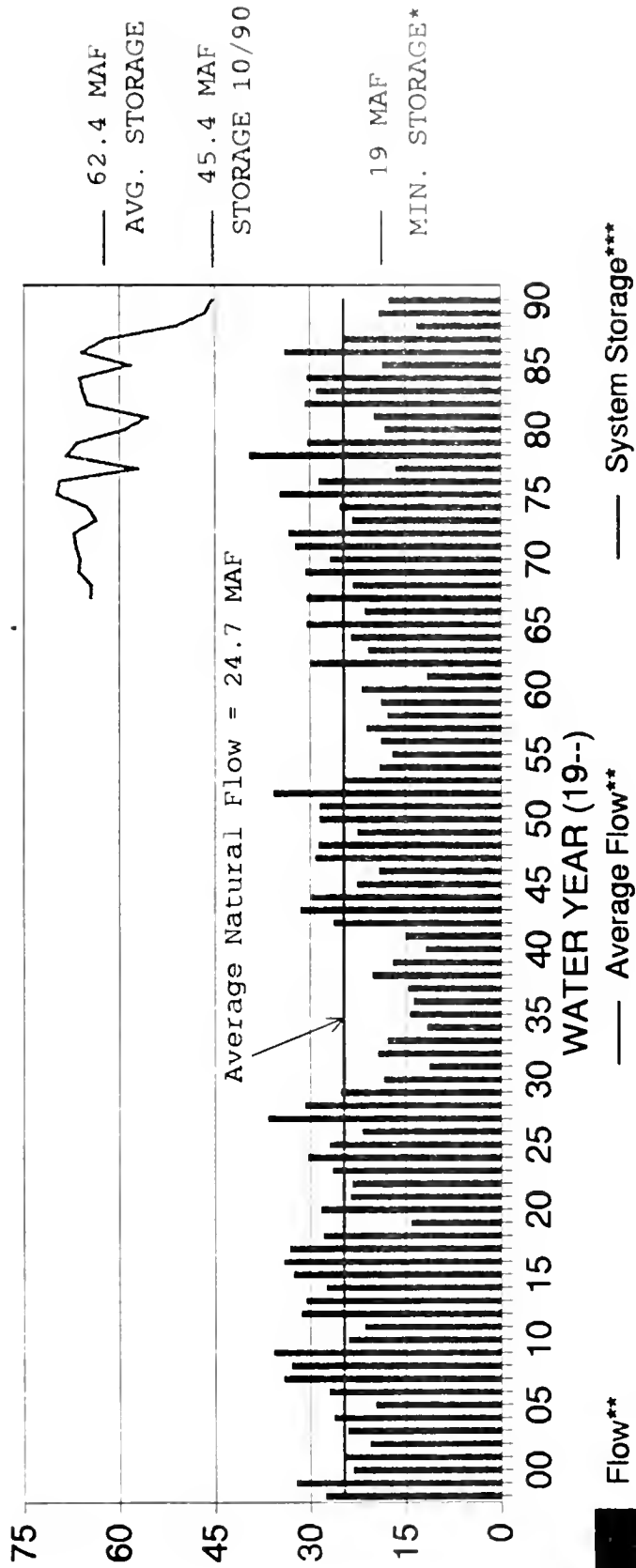
and Federal agencies, and irrigation districts. All firm power customers have fixed contract rates of delivery for Federal power and obtain their additional requirements through their own generation or purchases from auxiliary suppliers. The Eastern Division is interconnected with the Southwestern Power Administration (SWPA) at Maryville, Missouri, and through a wheeling agent's system, with the Bonneville Power Administration. From time to time, when load and production conditions are opportune, power and energy are interchanged with, sold to, or purchased from these agencies on a short-term basis to enhance the operation of each system. P-SMBP's share of hydrodiversity available through the SWPA intertie amounts to firm capacity of 25 MW. This arrangement benefits power operations of both the Eastern Division and SWPA, and revenues realized have assisted in P-SMBP repayment.

In addition, the Eastern Division is interconnected with about ten nonpreference entities. Most of these nonpreference entities wheel Western power to preference customers from the points of interconnections. Also, from time to time, short-term sales of temporary power surpluses and/or short-term purchases because of temporary generating deficits are made with these entities. Energy is also interchanged when mutually beneficial.

Commitments of firm capacity in the Eastern Division are based on projected capability available under 1961 water conditions. Firm energy is provided on the basis of a customer's hourly load pattern.

MISSOURI RIVER

NATURAL FLOW AND SYSTEM STORAGE



* Combined minimum storage required for power generation.

** Natural flow at Sioux City, Iowa

*** Includes Main Stem, Canyon Ferry, and Yellowtail Reservoirs

C. Western Division Hydrology and Marketing Criteria

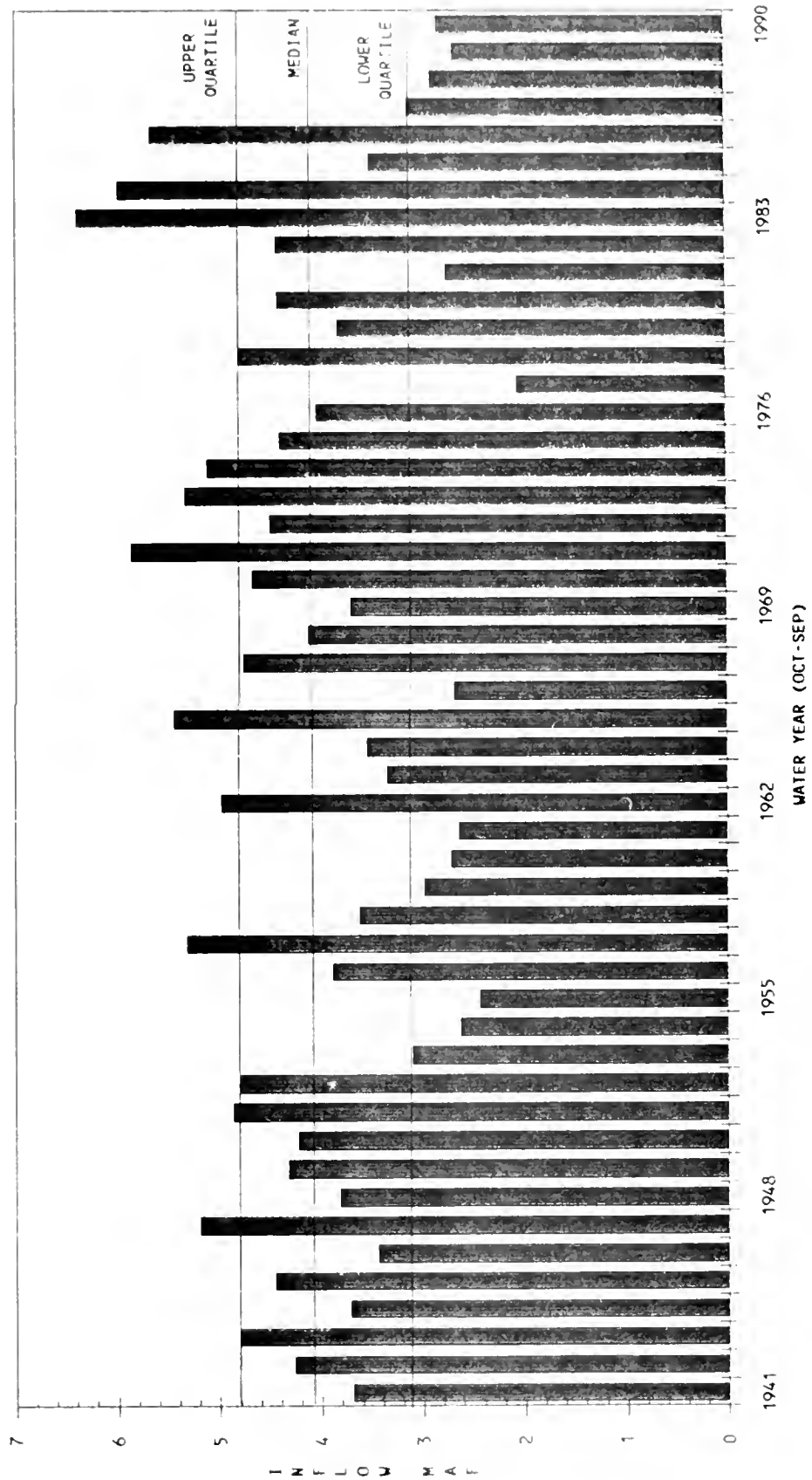
The past decade has seen water conditions in 1983, 1984 and 1986 higher than the upper quartile and water conditions in 1981, 1987, 1988, 1989, and 1990 equal to or below the lower quartile. The mean total annual inflow to the Big Thompson, North Platte, and the Big Horn River Basins is 4.05 million acre-feet. The upper and lower quartile inflows are 4.8 million acre-feet and 3.12 million acre-feet respectively.

The Western Division resources contribute 516.5 MW in the summer and 438.5 MW in the winter and 2036 gWh annually to the Loveland Area Projects (LAP) marketable capacity and energy. Final allocations of the LAP marketable capacity and energy were published in the Federal Register under the title, "Final Post-1989 Allocation of Power; Pick-Sloan Missouri Basin Program-Western Division and Fryingpan-Arkansas Project," (52 FR 2597) on January 23, 1987. The Post-1989 General Power Marketing and Allocation Criteria: P-SMBP Western Division (51 FR 4012) became effective on the first day of the October 1989 billing period.

The marketable firm capacity for each month is limited to the capacity available 90% of the time based on a 35 year reservoir modeling study. The study used the historic record of monthly reservoir inflows for 1941 through 1975 as input. The marketable firm energy for each month is the average monthly energy based on the reservoir modeling study.

The Western Division annual system inflow, beginning in 1941, is shown in the bar graph on the next page.

HISTORIC WESTERN DIVISION INFLOWS



APPENDIX C (POWER REPAYMENT STUDY)

March 1991

POWER REPAYMENT STUDY

A. General History

The PRS for the P-SMBP is prepared by Western with the cooperation of the Bureau and the Corps. River basin hydrology, water depletions, power generation, and project development data are among the many items the Bureau and the Corps contribute to the study. The PRS is prepared in accordance with P-SMBP authorizing legislation and with DOE Order No. RA 6120.2 on Power Marketing Administration Financial Reporting.

Special Study B-5, documented in the "Report on Financial Position MRBP, December 1963", was submitted to Congress and set forth a broad statement of repayment principles endorsed by legislative history in support of or authorized in the Garrison Diversion Unit Authorization Act of August 5, 1965. Basic guidelines and criteria established therein have been incorporated in all subsequent PRS's.

B. General Description of PRS

The PRS is conducted to assure that projected revenues will balance projected expenses. Some categories in the PRS are revenues, O&M expenses, interest expenses, repayment of replacements and investment, payments to the integrated projects, and repayment of those irrigation costs which are to be paid from power revenues. The study is designed to repay the investment carrying the highest interest rate first. However, all investments are required to be repaid within their authorized repayment periods; 50 years for power investments. The repayment period for replacements is the expected service life or 50 years whichever is

less. For the repayment of future Irrigation Aid 60 years is used; this includes a 10 year development period.

Pursuant to the 1965 Garrison Unit Authorization Act and related analysis, costs relating to specific irrigation units (including main stem and other reservoir storage and irrigation pumping power cost assignments if appropriate) constructed or under construction on June 30, 1964, are to be repaid within the earliest practicable time period after completion of repayment of interest-bearing commercial power investment, but prior to irrigation units constructed after that date. Costs relating to new (after June 30, 1964) and future irrigation units, divisions, or irrigation blocks (including main stem and other reservoir storage and irrigation pumping power cost assignments if appropriate) are to be repaid within 50 years following an allowable development period (usually 10 years) after an individual unit, division, or irrigation block becomes benefit-producing. The first new irrigation not constructed or under construction on June 30, 1964, will be placed in service in 1990, thus establishing the end of the repayment period for the "old" irrigation. The 1986 Act modifies this methodology for the reformulated Garrison Unit.

C. Study Elements

The following items are entered into the PRS as actual data or as future estimates. These are then used in the study to make long-term projections of revenues and expenses.

1. Total Revenue

Total annual firm and surplus energy and the annual capacity sales are based on average and adverse water conditions respectively.

Basic data for determining power generated at the Bureau powerplants and the Corps powerplants were obtained from latest available reservoir operational studies. The generation data reflects irrigation depletions.

The "total revenues data" for a study include revenues from sales of long-term firm commercial power, sales of peaking power, sales of irrigation energy, and other revenues. These other revenues include such sales as special sales (economy energy, summer firm, maintenance energy, and replacement energy), wheeling income, joint transmission system charges, SWPA share of intertie costs, Canyon Ferry headwater benefits and others. See Appendix F for detail of the future year projections of the other revenue.

2. Total Expenses

a. O&M Expense

Projected O&M expenses for the 5 budget years are based on the program documents contained in the appropriate budget congressional justification. In BAO, O&M projections for the years beyond the budget period of the study are based on the last budget year amount, excluding non-recurring O&M and Conservation & Renewable Energy.

Although, the projected O&M expense is a constant figure, the wheeling expense declines proportionately as firm power sales decline. The payments made to the State of Wyoming, associated with the modifications at Buffalo Bill Dam, are included as an annual O&M expense to accommodate the mechanics of the PRS. It is important to note that the payment to Wyoming is an annual investment expense and is therefore not related to the operation and maintenance of the Federal power system. See Appendix F for detail of the future year projections on the O&M expenses.

b. Purchased Energy Expense

Projected purchased power costs are based on the need to meet firm power contract commitments. Continuing drought conditions have been cause for the need to project purchase power costs.

c. Integrated Projects Expense

Future expenses are based on each of the PRS's for the individual Integrated Projects. Four projects, Colorado-Big Thompson, Kendrick, North Platte, and Shoshone, were combined with the P-SMBP and are known as the "Integrated Projects". This integration combined the projects' powerplants and transmission systems for operational, power marketing, and repayment purposes. Irrigation development of the Integrated Projects was completed in accord with plans contemplated in the individual pieces of authorizing legislation. Long-term

contracts established the share of the costs allocated to irrigation that the irrigation districts would repay. The remaining irrigation development costs were assigned to be repaid from power revenues. An annual transfer of funds from the P-SMBP to the Integrated Projects is made in an amount sufficient to cover O&M expenses, interest expenses, repayment of the interest-bearing power investment, and repayment of replacements. In addition to these annual costs, payments are made periodically to repay the portion of the irrigation investment assigned to power. This annual transfer of funds from P-SMBP to the Integrated Projects shows as an expense in the P-SMBP PRS.

d. Total Interest Expense

Interest expenses in the future years are based on the unpaid balance of the interest bearing investments. They reflect the various interest rates applied to those unpaid balances.

Western's policy for determining interest rates applicable to new construction was revised on September 1, 1982. As revised, the interest rate to be used for both interest during construction and interest on the unpaid portion of any investment, for which funds were first appropriated during or after FY 1982 for construction of new facilities, and additions and replacements, shall be the yield rate during the fiscal year in which construction is initiated. This policy was first

reflected in the FY 1983 PRS for the P-SMBP.

The change in interest rate affects only new investments initiated in FY 1982 or later. Investments under construction prior to FY 1982 continue to be subject to the interest rates of 2.5% and 3.0%. Interest rates are adjusted annually to reflect the appropriate interest cost at the time construction is initiated. Interest rates in this study vary from the original project rates of 2.5% and 3.0% to a high of 12.375% in FY 1985.

3. Power Investment

Future Investments are projected through the budget period only, and are based on program documents contained in the appropriate budget justification. The interest-bearing power investments represented in the repayment studies are the total specific power costs plus a share of the multipurpose functions allocated to power, less the suballocation to interest-free irrigation.

4. Replacements

Estimated replacement costs during the budget period are based on the program documents contained in the appropriate budget justification. The replacement costs beyond the budget period in the program documents are projected by the Replacements Program and indexed to the appropriate year cost levels.

Beginning in FY 1973, future replacement costs were treated as a capital investment and included in repayment studies. Repayment periods associated with replacements are based on a specific plant account that reflects a weighted service life and a periodic factor for each unit of property included in the total electric plant investment, but do not exceed 50 years. The units of property and plant account factors used in this study to estimate future replacements beyond the budget period are based on the May 1989 publication entitled "Replacements -- Units, Service Lives, Factors," reviewed and updated by Western in cooperation with the Bureau. The estimated service lives of the units of property reflect past experience with various facilities. The total P-SMBP electric plant investment by plant account is used in computing estimated future replacement costs.

5. Irrigation Aid

Power revenues, by law, are used to repay irrigation investment beyond the irrigators' ability to repay. This is termed "Irrigation Aid" on Exhibit 1 in Appendix E. As the irrigation aid cost for Garrison Diversion units begin to occur in the cost evaluation period ("5-year window"), they will be scheduled for repayment on the basis of 40 equal annual payments. There are no such costs in this or historic PRS's.

See the listings on the following pages for the Irrigation Aid requirements of the existing units, the units that are under construction or for which construction is expected to be completed. This also recognizes other units for which future development is anticipated. For

each of these units the year in which irrigation aid is required and the amount of aid per unit is listed. Future irrigation investments are based upon the appropriate construction cost indices.

EXISTING P-SMBP IRRIGATION PROJECTS
(Irrigation Aid Associated with Each Project)

Project Name	State	Initial Year	Project Acres		Amount of Aid (1000 Dollars)
			Full	Supp	
Riverton	WY	1925 ^{1/}	64,300		\$ 44,389
Rapid Valley	SD	1948		8,900	2,111
Savage	MT	1950	2,200		639
Heart Butte	ND	1952	6,700		1,256
Frenchman-Cambridge	NE	1952	56,500	9,600	50,704
Angostura	SD	1953	12,200		13,499
Bostwick	KS,NE	1953	62,900		25,055
Dickinson	ND	1954	400		253
Fort Clark	ND	1954	1,900		1,145
Crow Creek	MT	1955	5,000		2,721
Hanover-Bluff	WY	1957	7,400		6,945
Sargent	NE	1957	13,400		3,661
Kirwin	KS	1957	11,400		9,675
Owl Creek	WY	1957		11,300	8,069
Glendo	NE,WY	1958	44,600		67
Helena Valley	MT	1959	16,000		16,045
Webster	KS	1960	8,500		8,362
Cedar Bluff	KS	1963	6,800		7,159
East Bench	MT	1965	21,800	28,000	16,810
Ainsworth	NE	1965	34,500		15,699
Farwell	NE	1966	50,100		22,783
Almena	KS	1967	5,800		5,420
Glen Elder Dam & Res.	KS	1970			3,863
Keyhole	WY	1976		5,200	3,124
Shadehill	SD	1976	3,000		2,443
Lower Marias	MT	1979	3,200		16,362
North Loup-Block1	NE	1990	24,100		134,669

SubTotal			418,100	107,600	\$422,928

^{1/} Reauthorized under P-SMBP in 1970 (PL 91-409).

TOTAL IRRIGATION AID REQUIREMENTS FOR P-SMBP

<u>P-SMBP Units</u>		<u>Project</u>	<u>Acres</u>	<u>Year</u>	<u>Year in</u>	<u>Amount</u>
		<u>Full</u>	<u>Supp.</u>	<u>On Line</u>	<u>which Aid</u>	<u>of Aid</u>
					<u>Required</u>	<u>(\$1000)</u>
<u>Existing Units</u>	Subtotal	418,124	107,600			422,928
<u>Under Construction</u>						
Belle Fourche <u>1/</u>		57,068	-	1991	2038	36,774
North Loup		9,961	-	1994	2053	55,336
North Loup		20,965		1995	2054	116,467
Under Construction-Subtotal		30,926				208,577
<u>Other Units - Subtotal</u>		1,958,010	270,000	2008 2090	2067 2149	4,872,201
Investment based upon 83 years = \$ 58,701/year						

1990 PRS Irrigation Aid requirements Subtotal						\$5,503,706
Garrison Diversion Unit		130,494				696,370
(not a part of the 1990 PRS)						

GRAND TOTALS		2,538,000	377,600			6,200,077

1/ Belle Fourche acreage not included in projects in construction phase total as it is existing acreage transferred to P-SMBP under P.L.98-157.

APPENDIX D (SUBALLOCATION OF POWER SYSTEM COSTS TO IRRIGATION)

March 1991

Suballocation of Power System Costs to Irrigation

The legislative history of the P-SMBP recognizes that a portion of the power produced by project hydropower plants is reserved for Federal project irrigation pumping service. It also establishes that the funding of the power system required to produce and deliver that reservation be on an interest free basis. As a means of implementing these provisions, a ratio of ultimate development pumping requirements to total system generating capacity is calculated. This ratio, or percentage, is then applied to the total investment allocated to power. The result is that portion of the power investment deemed necessary to satisfy irrigation pumping requirements, and is accordingly "suballocated" to an interest free account for the purpose of a power repayment analysis.

Since passage of the 1986 Garrison Reallocation Act this percentage has been set at 15.8%; calculated as follows:

$$\begin{array}{ll} 398,360 \text{ kW} & (346,370 \text{ kW adjusted to an equivalent at plant value} \\ & \text{by 15\% for reserves, losses and diversity}) \\ \text{divided by} & \\ 2,522,600 \text{ kW} & (\text{Assumed generating capability of the hydrosystem}) \\ = & 15.8\% \end{array}$$

The amount of the Power Investment suballocated to Irrigation is then 15.8% of the Total Power Investment, excluding interest during construction.

Example: Total Power Investment in FY 1989	\$1,655,744,158
less Interest During Construction	<u>\$68,435,444</u>
Net Power Investment	\$1,587,308,714
	X <u>0.158</u>
Amount Suballocated to Irrigation	\$250,794,777

P-SMBP IRRIGATION PROJECTS
(Project Use pumping requirements)

<u>Project Name</u>	<u>State</u>	<u>Initial Year</u>	<u>Pumping Capacity (kW)</u>
Existing units			
Riverton	WY	1925	
Rapid Valley	SD	1948	
Savage	MT	1950	500
Heart Butte	ND	1952	550
Frenchman-Cambridge	NE	1952	
Angostura	SD	1953	
Bostwick	KS, NE	1953	640
Dickinson	ND	1954	
Fort Clark	ND	1954	485
Crow Creek	MT	1955	2,100
Hanover-Bluff	WY	1957	2,245
Sargent	NE	1957	
Kirwin	KS	1957	
Owl Creek	WY	1957	1,200
Glendo	NE, WY	1958	
Helena Valley	MT	1959	
Webster	KS	1960	
Cedar Bluff	KS	1963	
East Bench	MT	1965	
Ainsworth	NE	1965	
Farwell	NE	1966	600
Almena	KS	1967	
Glen Elder Dam & Res.	KS	1970	
Keyhole	WY	1976	
Shadehill	SD	1976	
Lower Marias	MT	1979	
North Loup-Block1	NE	1990	2,015
Indian Units			9,904
Future units			
Garrison Diversion Unit			74,931
MB Other Units			251,200

Total			346,370

**POWERPLANT AND GENERATION DATA
FOR THE P-SMBP SUBALLOCATION DETERMINATION**

<u>Location (Near)</u>	<u>Reservoir</u>	<u>Assumed Generation Capacity (kW)</u>	
<u>CORPS Main Stem Facilities:</u>			
Glasgow, MT	Fort Peck	185,000	(Fort Peck)
Garrison, ND	Sakakawea	430,000	(Garrison)
Pierre, SD	Oahe	595,000	(Oahe)
Chamberlain, SD	Sharpe	468,000	(Big Bend)
Lake Andes, SD	Francis Case	320,000	(Ft. Randall)
Yankton, SD	Lewis & Clark	100,000	(Gavins Point)
<u>Bureau of Reclamation Facilities:</u>			
Helena, MT	Canyon Ferry	50,000	(Canyon Ferry)
Fort Smith, Mt	Bighorn	250,000	(Yellowtail)
Thermopolis, WY	Boysen	15,000	(Boysen)
Riverton, WY	Wyoming Canal	1,600*	(Pilot Butte)
Glendo, WY	Glendo	24,000	(Glendo)
Casper, WY	Kortes	36,000	(Kortes)
Casper, WY	Pathfinder	48,000	(Fremont Canyon)
<u>Total Generation</u>		<u>2,522,600</u>	

* Plant not presently in service

APPENDIX E (EXECUTIVE SUMMARY)

FY 1990 PRS & FY 1991 PRS

March 1991

1	2	3	17	18	19	20
			REPLACEMENTS			
STUDY YEAR	F.Y. OR C.Y.	TOTAL REVENUE	OPER/ UNPAID AT FEDERAL MAIN INVESTMENT EXPS	ALLOWABLE UNPAID FEDERAL INVESTMENT	CUMULATIVE FEDERAL INVESTMENT	PRINCIPAL PAYMENTS
						FY
1	1950	4,033				1,278 50
2	1951	1,404				483 51
3	1952	2,372				717 52
4	1953	6,405				716 53
5	1954	8,201				-709 54
6	1955	11,464				-550 55
7	1956	14,583				-2,129 56
8	1957	18,606				-4,367 57
9	1958	21,384				-777 58
10	1959	21,687				-4,264 59
11	1960	22,264				-3,909 60
12	1961	25,237				-2,989 61
13	1962	27,284				-4,454 62
14	1963	29,903				10,343 63
15	1964	33,945				264 64
16	1965	38,498				1,101 65
17	1966	45,555				8,859 66
18	1967	48,934				8,346 67
19	1968	56,153				14,371 68
20	1969	60,472				17,359 69
21	1970	67,757				23,235 70
22	1971	75,287				27,996 71
23	1972	81,477				34,494 72
REPL. ADJ.						
23	1973	75,926		9,013	9,013	23,016 73
24	1974	79,465		10,048	10,048	24,810 74
25	1975	91,429		10,758	10,758	34,935 75
26	1976	157,439		11,201	11,201	89,639 76
27	1977	105,538		12,228	12,228	47,369 77
28	1978	116,303		13,574	13,574	38,595 78
29	1979	126,310		15,040	15,040	67,338 79
30	1980	109,671		15,303	15,303	37,300 80
31	1981	121,906		15,375	15,375	26,719 81
32	1982	85,832		17,828	17,828	23,661 82
33	1983	122,372		18,367	18,367	41,972 83
34	1984	91,762		20,823	20,823	13,309 84
35	1985	150,988		22,267	22,267	54,875 85
36	1986	137,908		29,856	29,856	29,671 86
37	1987	142,991		31,576	31,576	42,095 87
INTR. ADJ.						
38	1988	128,826		39,322	39,322	18,180 88
39	1989	122,043		40,829	40,829	89
40	1990	136,389	7,997	48,820	48,826	90
MISC. ADJ.						
41		9,673				
HIST. SUBTOT.						
42		2,635,667	1	7,997	48,826	739,597
43	1991	164,064		11,703	52,525	52,532 91
44	1992	200,981		18,899	59,718	59,728 92
45	1993	203,872		22,105	62,924	62,934 93
46	1994	204,238		25,729	66,532	66,558 94
47	1995	203,913		30,891	71,572	71,720 95
48	1996	203,539		35,606	76,282	76,435 96
49	1997	203,392		54,948	95,533	95,778 97
50	1998	203,392		82,453	123,037	123,283 98
51	1999	203,377		125,113	164,897	165,942 99
52	2000	201,148		162,961	201,943	203,790 00
53	2001	201,680		182,472	227,754	231,298 01
54	2002	201,354		209,488	253,657	258,314 02
55	2003	201,398		237,666	300,374	305,175 03
56	2004	201,443		216,511	328,861	334,616 04
57	2005	201,486		198,064	359,933	366,041 05
58	2006	201,544		169,019	376,554	384,321 06
59	2007	201,190		141,990	398,115	406,726 07
60	2008	201,275		108,609	415,568	425,530 08
61	2009	201,216		57,823	419,067	429,956 09
62	2010	201,185		15,455	434,098	447,435 10
63	2011	201,183			452,148	466,605 11
64	2012	201,168			490,448	505,182 12
65	2013	201,182		13,755	503,468	518,993 13
66	2014	201,172			521,808	538,297 14
67	2015	200,997		8,542	532,720	561,254 15
68	2016	201,017		17,742	556,494	589,222 16
69	2017	201,033			569,768	604,527 17
70	2018	201,077			570,378	616,311 18
71	2019	201,022			572,956	620,397 19

POWER REPAYMENT STUDY
FOR
FISCAL YEAR 1990
PICK-SLOAN MISSOURI BASIN PROGRAM
WESTERN AREA POWER ADMINISTRATION

(ALL AMOUNTS IN \$1,000)

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	
EXPENSES																				
STUDY YEAR	F.Y. OR C.Y.	TOTAL REVENUE	OPERATIONS AND MAINTENANCE EXPENSE	CAPACITY AND/OR ENERGY PURCHASE EXPENSE	OTHER EXPENSE	INTEGRATED PROJECTS	INTEREST EXPENSES	TOTAL EXPENSES	PRIOR YEAR ADJUSTMENTS	REVENUE AFTER ANNUAL EXPENSES	PRINCIPAL PAYMENTS ON CAPITALIZED ANNUAL EXPENSE DEFICITS	NET REVENUE FOR INVESTMENT REPAYMENT	PRINCIPAL PAYMENTS ON CAPITALIZED ANNUAL EXPENSE DEFICITS	TOTAL UNPAID: ANNUAL AND REQUIRED PAYMENT DEFICITS	PRINCIPAL PAYMENTS	UNPAID FEDERAL INVESTMENT	ALLOWABLE UNPAID FEDERAL INVESTMENT	CUMULATIVE FEDERAL INVESTMENT	PRINCIPAL PAYMENTS	
1	1950	4,033	1,719	62	343		631	2,755		1,278										
2	1951	1,404	636	3	115		164	918		483									1,278 50	
3	1952	2,372	996	2	226		416	1,640		717									483 51	
4	1953	6,405	1,944	397	433	2,033	852	5,660		29									717 52	
5	1954	8,201	2,430	312	552	4,071	1,541	8,906		-4									716 53	
6	1955	11,464	3,288	509	831	3,994	3,331	11,953		-61									-709 54	
7	1956	14,583	3,994	943	1,065	4,640	6,001	16,643		-70									-550 55	
8	1957	18,606	4,756	1,549	1,646	4,688	10,176	22,815		-157									-2,129 56	
9	1958	21,384	5,515	1,283	1,532	5,078	9,326	22,734		572									-4,367 57	
10	1959	21,687	6,373	617	1,598	5,382	11,898	25,867		-85									-777 58	
11	1960	22,264	6,641	354	1,707	5,535	11,937	26,173		-3,909									-4,264 59	
12	1961	25,237	7,072	1,970	1,401	4,977	12,645	28,065		-162									-2,989 61	
13	1962	27,284	7,504	2,778	1,542	4,505	15,417	31,745		7									-4,454 62	
14	1963	29,903	8,219	562	8,304	5,950	16,424	39,458		19,898									10,343 63	
15	1964	33,945	8,331	648	9,211	5,710	20,361	44,261		10,579									264 64	
16	1965	38,498	10,379	498	9,721	5,421	20,921	46,941		9,543									1,101 65	
17	1966	45,555	11,168	691	8,152	4,713	19,728	44,452		7,756									8,859 66	
18	1967	48,934	12,209	1,440	4,628	5,734	21,134	45,145		4,557									8,346 67	
19	1968	56,163	12,718	1,458	4,955	4,605	22,098	45,834		4,042									14,371 68	
20	1969	60,472	14,862	1,777	5,221	4,816	22,013	48,688		5,576									17,359 69	
21	1970	67,757	15,630	2,279	5,206	5,606	21,731	50,452		5,930									23,235 70	
22	1971	75,287	17,309	2,108	5,129	5,608	21,092	51,246		3,955									27,996 71	
23	1972	81,477	18,936	1,639	5,176	6,148	20,646	52,546		5,563									34,494 72	
REPL. ADJ.						-78,695			-78,695		-72,081		6,614							
24	1973	75,926	20,981	3,222	6,009	20,286	50,497	50,497		-14					9,013		9,013	9,013	23,016 73	
25	1974	79,465	21,358	6,476	6,470	19,619	53,923	53,923		303					1,035		10,048	10,048	24,810 74	
26	1975	91,429	23,905	4,331	7,504	20,141	55,881	97		35,645					710		10,758	10,758	34,935 75	
27	1976	157,439	33,135	1,664	9,624	23,337	67,760	404		90,083					444		11,201	11,201	69,639 76	
28	1977	105,538	29,626	4,952	6,448	16,835	57,871	729		48,396					1,027		12,228	12,228	47,369 77	
29	1978	116,303	37,417	13,238	8,528	16,706	75,889	39,591		-473					1,346		13,574	13,574	38,595 78	
30	1979	126,310	38,078	213	5,714	16,358	60,363	2,856		68,804					1,466		15,040	15,040	67,338 79	
31	1980	109,671	40,350	10,319	5,129	14,702	70,501	-1,008		38,162					262		15,303	15,303	37,900 80	
32	1981	121,906	42,458	7,534	15,524	15,524	82,049	-13,066		26,791					72		15,375	15,375	26,719 81	
33	1982	85,832	48,783	9,321	11,267	14,607	63,978	24,260		26,114					2,453		17,828	17,828	39,619 82	
34	1983	122,372	52,989	1,758	10,506	13,027	78,280	-1,581		42,511					539		18,367	18,367	41,972 83	
35	1984	91,762	59,616	2,387	12,868	12,709	87,580	11,583		15,765					2,456		20,823	20,823	13,309 84	
36	1985	150,988	68,404	2,486	11,810	12,216	94,917	348		56,420					1,444		22,267	22,267	54,975 85	
37	1986	137,908	73,375	1,135	8,330	11,802	104,862	4,213		37,259					7,589		29,856	29,856	29,671 86	
38	1987	142,991	73,743	1,143	9,321	14,962	99,169	-7		43,815					1,720		31,576	31,576	42,095 87	
INTR. ADJ.												752,994								
39	1988	126,826	79,311	5,411	6,393	12,989	104,103	-1,203		25,926					7,746		39,322	39,322	18,180 88	
40	1989	122,043	85,276	11,779	7,713	27,421	131,189	-14,370		-24,517					1,507		40,829	40,829	89	
41	1990	136,389	98,044	32,316	8,728	34,685	173,773			-37,385					63,409		48,820	48,820	90	
MISC. ADJ.		9,673	-13,694	-2,202	1,055	4,968	-9,853	-19,526												
HIST. SUBTOT.		2,835,687	1,095,793	151,582	259,154	613,405	2,119,934	1,266		717,018					63,409	40,829	7,997	48,820	48,826	739,597
42	1991	164,064	108,699	29,150	9,461	46,320	193,630	-29,566		-29,566					92,974		11,703	52,525	52,532	91
43	1992	200,981	109,069	25,050	12,152	54,625	200,896	85		85					92,869		59,718	59,728	92	
44	1993	203,872	105,354		11,820	57,508	174,682	29,190		29,190					62,700		62,105	62,924	62,934	93
45	1994	204,239	106,426		14,611	59,181	180,418	23,621		23,621					39,879		25,729	66,532	66,558	94
46	1995	203,913	106,999		9,099	59,958	176,090	27,823		27,823					12,056		30,891	71,572	71,720	95
47	1996	203,539	95,261		8,778	58,457	162,496	41,043		12,056							35,606	76,282	76,435	96
48	1997	203,392	95,261		15,250	57,880	165,500	37,883		37,883					28,986		54,949	95,593	95,778	97
49	1998	203,392	95,261		15,277	52,502	163,040	40,352		40,352					82,453		123,097	123,283	40,352 98	
50	1999	203,377	95,207		14,059	51,081	161,201	42,176		42,176					125,113		164,897	165,942	42,176 99	
51	2000	201,148	95,261		11,567	50,130	156,958	44,190		44,190							162,961	201,943	203,790	100
52	2001	201,680	95,207		18,397	49,166	162,771	38,909		38,909					7,997		182,472	227,754	231,298	101
53	2002	201,354	95,207		16,291	48,002	159,500	41,853		41,853							209,488	253,657	258,314	102
54	2003	201,398	95,207		9,512	47,146	151,865	49,534		49,534					18,684		237,666	300,374	305,175	103
55	2004	201,443	95,207		9,497	46,143	150,847	50,596		50,596					50,596					

21	22	23	24	25	26	27	28	29	30
POWER INVESTMENTS			IRRIGATION AIO						
UNPAID FEDERAL INVESTMENT	ALLOWABLE FEDERAL INVESTMENT	CUMULATIVE FEDERAL INVESTMENT	PRINCIPAL PAYMENTS	UNPAID FEDERAL INVESTMENT	ALLOWABLE FEDERAL INVESTMENT	CUMULATIVE FEDERAL INVESTMENT			CUMULATIVE EARNED SURPLUS
5,466	6,744	6,744		5,656	5,656	5,656			
13,869	15,630	15,630		5,656	5,656	5,656			
28,392	30,870	30,870		22,145	22,145	22,145			
51,355	54,549	54,549		22,597	22,597	22,597			
111,026	113,511	113,511		23,697	23,697	23,697			
200,034	201,970	201,970		25,210	25,210	25,210			
340,226	340,032	340,032		47,606	47,606	47,606			
358,305	353,745	353,745		85,267	85,267	85,267			
396,580	391,242	391,242		91,816	91,816	91,816			
397,907	388,305	388,305		96,352	96,352	96,352			
421,497	407,986	407,986		162,857	162,857	162,857			
513,901	497,400	497,400		162,857	162,857	162,857			
577,126	556,386	556,386		169,921	169,921	169,921			
678,690	668,078	668,078		204,433	204,433	204,433			
697,356	687,008	687,008		222,897	222,897	222,897			
770,341	761,094	761,094		222,897	222,897	222,897			
827,381	826,993	826,993		228,396	228,396	228,396			
861,389	869,347	869,347		244,233	244,233	244,233			
859,949	882,278	882,278		245,812	245,812	245,812			
850,780	890,467	890,467		245,812	245,812	245,812			
828,706	891,629	891,629		245,812	245,812	245,812			
814,673	905,592	905,592		266,421	266,421	266,421			
806,774	932,187	932,187		266,421	266,421	266,421			
784,719	933,149	933,149		266,421	266,421	266,421			
791,472	964,712	964,712		266,421	266,421	266,421			
760,074	968,249	968,249		266,421	266,421	266,421			
673,795	971,609	971,609		266,421	266,421	266,421			
629,541	974,725	974,725		266,421	266,421	266,421			
609,002	992,780	992,780		268,717	268,717	268,717			
543,242	994,358	994,358		268,717	268,717	268,717			
540,706	1,029,722	1,029,722		268,717	268,717	268,717			
523,171	1,038,906	1,038,906		268,717	268,717	268,717			
512,796	1,052,192	1,052,192		294,408	294,408	294,408			
427,840	1,009,207	1,009,207		291,726	291,726	291,726			
434,990	1,029,667	1,029,667		303,414	303,414	303,414			
415,302	1,064,954	1,064,954		345,885	345,885	345,885			
475,239	1,154,562	1,154,562		347,083	347,083	347,083			
441,158	1,162,575	1,162,575		413,512	413,512	413,512			
594,036	1,333,633	1,333,633		421,882	421,882	421,882			
665,352	1,404,949	1,404,949		422,928	422,928	422,928			
680,281	1,419,879	1,419,879		422,928	422,928	422,928			
680,281	1,419,879	1,419,879		422,928	422,928	422,928			
844,130	1,583,728	1,583,728		459,702	459,702	459,702			
870,123	1,609,721	1,609,721		459,702	459,702	459,702			
922,373	1,661,971	1,661,971		459,702	459,702	459,702			
959,389	1,696,995	1,696,995		515,038	515,038	515,038			
991,878	1,729,417	1,731,475		631,505	631,505	631,505			
962,890	1,728,816	1,731,475		631,505	631,505	631,505			
925,008	1,728,581	1,731,475		631,505	631,505	631,505			
884,656	1,726,436	1,731,475		631,505	631,505	631,505			
842,480	1,726,241	1,731,475		631,505	631,505	631,505			
798,289	1,725,119	1,731,475		631,505	631,505	631,505			
767,377	1,716,731	1,731,475		631,505	631,505	631,505			
725,524	1,702,347	1,731,475		631,505	631,505	631,505			
694,674	1,679,997	1,731,475		631,505	631,505	631,505			
694,674	1,624,343	1,731,475		631,505	631,505	631,505			
694,674	1,540,849	1,731,475		631,505	631,505	631,505			
694,674	1,410,535	1,731,475		631,505	631,505	631,505			
694,674	1,397,552	1,731,475		631,505	631,505	631,505			
694,674	1,362,199	1,731,475		690,206	690,206	690,206			
694,674	1,362,199	1,731,475		748,907	748,907	748,907			
694,674	1,343,482	1,731,475		807,608	807,608	807,608			
690,479	1,258,446	1,731,475		866,309	866,309	866,309			
686,008	1,202,351	1,731,475		925,010	925,010	925,010			
637,217	1,096,130	1,731,475		903,711	903,711	903,711			
597,695	1,078,127	1,731,475		1,042,412	1,042,412	1,042,412			
535,739	1,007,670	1,731,475		1,101,113	1,101,113	1,101,113			
480,629	944,299	1,731,475		1,159,814	1,159,814	1,159,814			
440,784	904,577	1,731,475		1,210,515	1,210,515	1,210,515			
386,319	802,263	1,731,475		1,277,216	1,277,216	1,277,216			
301,770	804,443	1,731,475		1,335,917	1,335,917	1,335,917			

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
STUDY YEAR	F. Y. OR C. Y.	TOTAL REVENUE	EXPENSES							PRIOR YEAR ADJUSTMENTS	REVENUE AFTER ANNUAL EXPENSES	PRINCIPAL	NET	PRINCIPAL	TOTAL UNPAID:	REPLACEMENTS			
			OPERATIONS AND MAINTENANCE EXPENSE	CAPACITY AND/OR ENERGY PURCHASE EXPENSE	OTHER EXPENSE	INTEGRATED PROJECTS	INTEREST EXPENSES	TOTAL EXPENSES	PAYMENTS ON CAPITALIZED ANNUAL EXPENSE DEFICITS			REVENUE FOR INVESTMENT REPAYMENT	PAYMENTS ON CAPITALIZED ANNUAL EXPENSE DEFICITS	ANNUAL EXPENSE AND REQUIRED PAYMENT	PRINCIPAL PAYMENTS	UNPAID FEDERAL INVESTMENT	ALLOWABLE UNPAID FEDERAL INVESTMENT	CUMULATIVE FEDERAL INVESTMENT	PRINCIPAL PAYMENTS
70	2020	194,346	94,996			7,754	7,247	109,997		84,349		84,349			15,856		586,604	636,253	24,104
71	2021	194,390	94,996			7,952	5,950	108,898		85,493		85,493			5,130		589,620	641,384	80,362
72	2022	194,405	94,996			7,945	4,345	107,287		87,118		87,118			39,551		625,828	680,935	47,567
73	2023	194,421	94,996			9,741	2,723	107,461		86,960		86,960			4,338		621,106	685,273	82,622
74	2024	194,463	94,996			7,542	839	103,377		91,088		91,088			6,418		623,306	691,691	67,115
75	2025	194,480	94,996			7,549		102,545		91,935		91,935			17,422		638,848	709,113	25
76	2026	194,510	94,996			9,574		104,570		89,940		89,940			34,832		669,363	743,945	26
77	2027	193,448	90,101			9,879	3,286	103,266		90,182		90,182			90,182	71,338	828,510	905,465	27
78	2028	193,505	90,101			9,653	3,795	103,549		89,956		89,956			89,956	11,642	854,570	935,725	28
79	2029	193,505	90,101			9,760	509	100,370		93,135		93,135			67,554		907,253	991,637	29
80	2030	193,520	90,101			9,560		99,660		93,860		93,860			50,293		954,964	1,041,930	30
81	2031	190,421	90,101			12,753		102,854		87,567		87,567			43,951		981,197	1,085,881	31
82	2032	190,450	90,101			10,074		100,175		90,275		90,275			3,800		981,418	1,089,681	32
83	2033	190,481	90,101			10,733		100,834		89,646		89,646			26,842		982,060	1,116,522	33
84	2034	190,496	90,101			10,733		100,834		89,662		89,662			12,706		981,898	1,129,228	34
85	2035	190,526	90,101			10,733		100,834		89,692		89,692			15,559		994,843	1,144,787	35
86	2036	190,568	90,101			10,733		100,834		89,734		89,734			12,045		990,637	1,156,831	36
87	2037	190,583	90,101			10,733		100,834		89,749		89,749			38,321		1,012,251	1,195,152	37
88	2038	190,613	90,101			10,733		100,834		89,779		89,779			24,585		1,015,916	1,219,737	38
89	2039	190,642	90,101			10,733		100,834		89,808		89,808			25,163		1,014,695	1,244,900	39
90	2040	184,176	89,855			10,733		100,589		83,587		83,587			18,676		1,017,946	1,263,576	40
91	2041	184,133	89,855			10,733		100,589		83,544		83,544			8,194		1,016,585	1,271,770	41
92	2042	184,177	89,855			10,733		100,589		83,588		83,588			13,926		1,025,514	1,285,696	42
93	2043	184,192	89,855			10,733		100,589		83,604		83,604			26,392		1,025,415	1,312,088	43
94	2044	184,220	89,855			10,733		100,589		83,631		83,631			45,028		1,024,784	1,357,116	44
95	2045	184,220	89,855			10,733		100,589		83,631		83,631			34,282		1,024,306	1,391,398	45
96	2046	184,264	89,855			10,733		100,589		83,676		83,676			15,243		1,024,306	1,406,641	46
97	2047	184,279	89,855			10,733		100,589		83,691		83,691			17,105		1,024,306	1,423,747	47
98	2048	184,295	89,855			10,733		100,589		83,706		83,706			19,304		1,024,306	1,443,051	48
99	2049	184,325	89,855			10,733		100,589		83,736		83,736			4,213		1,024,306	1,447,264	49
100	2050	184,354	89,855			10,733		100,589		83,765		83,765			8,716		1,024,306	1,455,980	50
101	2051	184,369	89,855			10,733		100,589		83,781		83,781			13,337		1,024,306	1,469,316	51
102	2052	184,412	89,855			10,733		100,589		83,823		83,823			26,417		1,024,306	1,495,733	52
103	2053	184,427	89,855			10,733		100,589		83,839		83,839			15,340		1,024,306	1,511,073	53
104	2054	184,457	89,855			10,733		100,589		83,868		83,868			25,788		1,024,306	1,536,861	54
105	2055	184,487	89,855			10,733		100,589		83,898		83,898			17,522		1,024,306	1,554,383	55
106	2056	184,502	89,855			10,733		100,589		83,913		83,913			31,943		1,024,306	1,586,326	56
107	2057	184,532	89,855			10,733		100,589		83,944		83,944			17,165		1,024,306	1,603,491	57
108	2058	184,501	89,855			10,733		100,589		83,973		83,973			48,960		1,024,306	1,652,451	58
109	2059	184,577	89,855			10,733		100,589		83,988		83,988			10,949		1,024,306	1,663,400	59
110	2060	177,786	89,331			10,733		100,664		77,722		77,722			18,109		1,024,306	1,681,509	60
111	2061	177,809	89,323			10,733		100,056		77,814		77,814			35,651		1,024,306	1,717,159	61
112	2062	177,955	89,313			10,733		100,046		77,908		77,908			48,117		1,024,306	1,765,277	62
113	2063	178,052	89,305			10,733	5,309	105,347		72,705		72,705			72,705	118,306	1,024,306	1,956,287	63
114	2064	178,146	89,298			10,733	9,312	109,343		68,804		68,804			68,804	91,654	1,024,306	1,998,439	64
115	2065	176,229	89,289			10,733	7,455	107,477		70,751		70,751			70,751	75,779	1,024,306	2,053,316	65
116	2066	178,324	89,282			10,733	5,092	105,107		73,217		73,217			73,217	37,543	1,024,306	2,089,296	66
117	2067	178,416	89,275			10,733	1,643	101,650		76,766		76,766			67,713		1,024,306	2,118,466	67
118	2068	178,513	89,266			10,733		99,999		78,514		78,514			9,389		1,024,306	2,127,855	68
119	2069	178,593	89,259			10,733		99,992		78,601		78,601			16,937		1,024,306	2,144,792	69
120	2070	178,688	89,252			10,733		99,985		78,703		78,703			22,580		1,024,306	2,167,372	70
121	2071	178,770	89,243			10,733		99,976		78,794		78,794			3,676		1,024,306	2,171,048	71
122	2072	178,865	89,236			10,733		99,969		78,896		78,896			6,134		1,024,306	2,175,183	72
123	2073	178,963	89,228			10,733		99,961		79,002		79,002			12,431		1,024,306	2,188,614	73
124	2074	179,042	89,220			10,733		99,953		79,089		79,089			25,147		1,024,306	2,213,760	74
125	2075	179,135	89,213			10,733		99,946		79,189		79,189			42,123		1,024,306	2,255,883	75
126	2076	179,246	89,205			10,733		99,938		79,308		79,308			17,614		1,024,306	2,273,697	76
127	20																		

21	22	23	24	25	26	27	28	29	30	
POWER INVESTMENTS			IRRIGATION AID							
UNPAID FEDERAL INVESTMENT	ALLOWABLE UNPAID FEDERAL INVESTMENT	CUMULATIVE FEDERAL INVESTMENT	PRINCIPAL PAYMENTS	UNPAID FEDERAL INVESTMENT	ALLOWABLE UNPAID FEDERAL INVESTMENT	CUMULATIVE FEDERAL INVESTMENT			CUMULATIVE EARNED SURPLUS	
277,666	882,833	1,731,475	44,369	1,350,229	1,350,229	1,394,618				FY
197,304	869,510	1,731,475		1,408,930	1,408,930	1,453,319				20
149,737	844,219	1,731,475		1,467,631	1,467,631	1,512,020				21
67,115	843,243	1,731,475		1,526,332	1,526,332	1,570,721				22
	813,197	1,731,475	17,555	1,567,478	1,566,033	1,629,422				23
										24
	809,829	1,731,475	74,513	1,551,667	1,643,734	1,688,123				25
	806,630	1,731,475	55,106	1,555,260	1,702,435	1,746,804				26
	803,665	1,731,475		1,613,961	1,761,135	1,805,525				27
	786,491	1,731,475		1,672,662	1,819,837	1,864,226				28
	784,964	1,731,475	25,581	1,705,762	1,878,538	1,922,927				29
										30
	751,332	1,731,475	43,566	1,720,916	1,937,239	1,981,628				31
	742,529	1,731,475	43,616	1,736,001	1,955,940	2,040,329				32
	729,891	1,731,475	86,476	1,708,226	2,054,641	2,099,030				33
	729,340	1,731,475	62,805	1,704,123	2,113,342	2,157,731				34
	709,010	1,731,475	76,956	1,685,868	2,172,043	2,216,432				35
										36
	673,910	1,731,475	74,133	1,670,435	2,230,744	2,275,133				37
	584,837	1,731,475	77,689	1,651,447	2,289,445	2,333,834				38
	576,866	1,731,475	51,428	1,658,720	2,348,146	2,392,535				39
	405,899	1,731,475	65,195	1,652,227	2,370,073	2,451,236				40
	326,535	1,731,475	64,645	1,646,262	2,428,774	2,509,937				41
										42
	311,605	1,731,475	64,911	1,640,073	2,450,701	2,565,638				43
	147,756	1,731,475	75,350	1,623,424	2,454,066	2,627,139				44
	121,763	1,731,475	69,663	1,612,462	2,512,767	2,686,040				45
	69,513	1,731,475	57,211	1,613,951	2,571,468	2,744,741				46
	32,497	1,731,475	38,604	1,634,048	2,586,299	2,803,442				47
										48
	9	1,731,475	49,349	1,643,400	2,445,000	2,862,143				49
		1,731,475	68,432	1,633,669	2,369,032	2,920,844				50
		1,731,475	66,585	1,625,765	2,427,733	2,979,545				51
		1,731,475	64,402	1,620,084	2,486,434	3,038,246				52
		1,731,475	79,524	1,599,261	2,545,135	3,096,947				53
										54
		1,731,475	75,050	1,582,913	2,603,836	3,155,648				55
		1,731,475	70,444	1,571,170	2,546,070	3,214,349				56
		1,731,475	57,407	1,572,464	2,604,771	3,273,050				57
		1,731,475	68,499	1,562,666	2,663,472	3,331,751				58
		1,731,475	58,080	1,563,237	2,722,173	3,390,452				59
										60
		1,731,475	66,376	1,555,612	2,780,874	3,449,153				61
		1,731,475	51,971	1,562,343	2,839,575	3,507,854				62
		1,731,475	66,779	1,554,265	2,898,276	3,566,555				63
		1,731,475	35,013	1,577,953	2,956,977	3,625,256				64
		1,731,475	73,039	1,563,615	3,015,678	3,683,957				65
										66
		1,731,475	59,613	1,562,702	3,074,379	3,742,658				67
		1,731,475	42,163	1,579,241	3,133,080	3,801,359				68
		1,731,475	29,791	1,608,151	3,191,781	3,860,060				69
		1,731,475		1,666,852	3,250,482	3,918,761				70
		1,731,475		1,725,553	3,309,183	3,977,462				71
										72
		1,731,475		1,784,254	3,367,884	4,036,163				73
		1,731,475		1,842,955	3,426,585	4,094,864				74
		1,731,475	9,052	1,892,603	3,426,585	4,153,565				75
		1,731,475	69,125	1,885,179	3,426,585	4,212,266				76
		1,731,475	61,664	1,879,216	3,426,585	4,270,967				77
										78
		1,731,475	56,123	1,881,794	3,426,585	4,329,668				79
		1,731,475	75,118	1,865,378	3,426,585	4,388,369				80
		1,731,475	73,762	1,850,317	3,426,585	4,447,070				81
		1,731,475	66,571	1,842,447	3,426,585	4,505,771				82
		1,731,475	53,942	1,847,206	3,426,585	4,564,472				83
										84
		1,731,475	37,066	1,868,841	3,426,585	4,623,173				85
		1,731,475	61,495	1,866,047	3,426,585	4,681,874				86
		1,731,475	72,413	1,852,335	3,426,585	4,740,575				87
		1,731,475	69,063	1,841,974	3,426,585	4,799,276				88
		1,731,475	56,539	1,844,136	3,426,585	4,857,977				89
										90
		1,731,475	56,983	1,845,853	3,426,585	4,916,678				91
		1,731,475	72,632	1,831,923	3,426,585	4,975,379				92
		1,731,475	1,801,385	1,820,238	3,426,585	5,034,080				93
		1,731,475	73,968	1,804,972	3,426,585	5,092,781				94
		1,731,475	53,538	1,810,134	3,426,585	5,151,482				95
										96
		1,731,475	71,572	1,797,263	3,426,585	5,210,183				97
		1,731,475	43,152	1,812,812	3,426,585	5,268,884				98
		1,731,475	66,800	1,804,705	3,426,585	5,327,585				99
		1,731,475	44,280	1,819,125	3,426,585	5,386,286				100
		1,731,475	39,943	1,837,804	3,426,585	5,444,987				101
										102
		1,731,475	39,357	1,857,246	3,426,585	5,503,706				103
										104
		1,731,475	3,646,460	1,857,246	3,426,585	5,503,706				105

POWER REPAYMENT STUDY
FOR
FISCAL YEAR 1991
PICK-SLOAN MISSOURI BASIN PROGRAM
WESTERN AREA POWER ADMINISTRATION
(ALL AMOUNTS IN \$1,000)

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
EXPENSES										REPLACEMENTS									
STUDY YEAR	F.Y. OR C.Y.	TOTAL REVENUE	OPERATIONS AND MAINTENANCE EXPENSE	CAPACITY AND/OR ENERGY PURCHASE EXPENSE	OTHER EXPENSE	INTEGRATED PROJECTS	INTEREST EXPENSES	TOTAL EXPENSES	PRIOR YEAR ADJUSTMENTS	REVENUE AFTER ANNUAL EXPENSES	PRINCIPAL PAYMENTS ON CAPITALIZED ANNUAL EXPENSE DEFICITS	NET REVENUE FOR INVESTMENT REPAYMENT	PRINCIPAL PAYMENTS REQUIRED AND REQUIRED DEFICITS	TOTAL UNPAID: ANNUAL EXPENSE AND REQUIRED PAYMENT DEFICITS	PRINCIPAL PAYMENTS	UNPAID FEDERAL INVESTMENT	ALLOWABLE UNPAID FEDERAL INVESTMENT	CUMULATIVE FEDERAL INVESTMENT	PRINCIPAL PAYMENTS
1	1950	4,033	1,719	62	343		631	2,755		1,278									1,278 50
2	1951	1,404	636	3	115		164	918	-3	483									483 51
3	1952	2,372	996	2	226		416	1,640	-14	717									717 52
4	1953	6,405	1,944	397	433	2,033	852	5,660	-29	716									716 53
5	1954	8,201	2,430	312	552	4,071	1,541	8,906	-4	-709									-709 54
6	1955	11,464	3,288	509	831		3,994	11,953	-61	-550									-550 55
7	1956	14,583	3,994	943	1,065		4,640	16,543	-70	-2,129									-2,129 56
8	1957	18,606	4,756	1,549	1,646		10,176	22,315	-157	-4,367									-4,367 57
9	1958	21,384	5,515	1,283	1,532		9,326	22,734	522	-777									-777 58
10	1959	21,687	6,373	617	1,598		11,898	25,667	-85	-4,264									-4,264 59
11	1960	22,264	6,641	354	1,707		5,535	11,937		-3,909									-3,909 60
12	1961	25,237	7,072	1,970	1,401		4,977	12,645	-162	-2,989									-2,989 61
13	1962	27,284	7,504	2,778	1,542		4,505	15,417	7	-4,454									-4,454 62
14	1963	29,903	8,219	562	8,304		5,950	16,424	19,898	10,343									10,343 63
15	1964	33,945	8,331	648	9,211		5,710	20,361	10,579	264									264 64
16	1965	38,498	10,379	498	9,721		5,421	20,921	9,543	1,101									1,101 65
17	1966	45,555	11,168	691	8,152		4,713	19,728	7,756	8,859									8,859 66
18	1967	48,934	12,209	1,440	4,628		5,734	21,134	4,557	8,346									8,346 67
19	1968	56,163	12,718	1,458	4,955		4,605	22,098	4,042	14,371									14,371 68
20	1969	60,472	14,862	1,777	5,221		4,816	22,013	5,576	17,359									17,359 69
21	1970	67,757	15,630	2,279	5,206		5,606	21,731	5,930	23,235									23,235 70
22	1971	75,287	17,309	2,108	5,129		5,608	21,092	3,955	27,996									27,996 71
23	1972	81,477	18,936	1,639	5,176		6,148	20,646	5,563	34,494									34,494 72
REPL. ADJ.					-78,695			-78,695	-72,081	6,614									
24	1973	75,926	20,981	3,222	6,009		20,266	50,497	-14	25,415					9,013		9,013	9,013	23,016 73
25	1974	79,465	21,358	4,476	6,470		19,619	53,923	303	25,845					1,035		10,048	10,048	24,810 74
26	1975	91,429	23,905	4,331	7,504		20,141	55,881	97	35,645					710		10,758	10,758	34,935 75
27	1976	107,439	33,135	1,664	9,624		23,337	67,760	404	90,083					444		11,201	11,201	89,639 76
28	1977	105,538	29,626	4,952	6,448		57,871	16,845	729	48,396					1,027		12,228	12,228	47,369 77
29	1978	116,303	37,417	13,238	8,528		16,706	75,889	-473	39,941					1,346		13,574	13,574	38,595 78
30	1979	126,310	38,078	213	5,714		16,358	60,363	2,856	68,804					1,466		15,040	15,040	67,338 79
31	1980	109,671	40,350	10,319	5,129		14,702	70,501	-1,008	38,162					262		15,303	15,303	37,900 80
32	1981	121,906	42,468	7,534	16,524		15,524	82,049	-13,066	26,791					72		15,375	15,375	26,719 81
33	1982	85,832	48,783	9,321	11,267		14,607	83,978	24,260	26,114					2,453		17,828	17,828	23,661 82
34	1983	122,372	52,989	1,758	10,506		13,027	78,280	-1,581	42,511					539		18,367	18,367	41,972 83
35	1984	91,762	59,616	2,387	12,868		12,709	87,580	11,583	15,765					2,456		20,823	20,823	13,309 84
36	1985	150,988	68,404	2,486	11,810		12,216	94,917	348	56,420					1,444		22,267	22,267	54,975 85
37	1986	137,908	73,375	11,355	8,330		11,802	104,862	4,213	37,259					7,589		29,856	29,856	29,671 86
38	1987	142,991	73,743	1,143	9,321		14,962	99,169	-7	43,815					1,720		31,576	31,576	42,095 87
INTR. ADJ.												752,994							
39	1988	128,826	79,311	5,411	6,393		12,989	104,103	1,203	25,926					7,746		39,322	39,322	18,180 88
40	1989	122,043	85,276	11,779	7,713		27,421	132,189	-14,370	-24,517					1,507		40,829	40,829	89
41	1990	136,389	98,044	32,316	8,728		34,685	173,773		-37,385					63,409		7,997	48,820	48,826 90
MISC. ADJ.		9,673	-13,694	-2,202	1,055		4,988	-9,853	-19,526										
HIST. SUBTOT.		2,835,687	1,095,793	151,582	259,154		613,405	2,119,934	1,266	717,018	-63,409	778,919		63,409	40,829	7,997	48,820	48,826	739,597
42	1991	164,754	108,699	30,550	9,461		46,351	195,061		-30,307					93,715		11,703	52,525	52,532 91
43	1992	189,364	115,725	22,850	12,152		55,396	206,123		-16,759					110,475		18,899	59,718	59,728 92
44	1993	208,325	111,710	7,000	11,820		59,579	190,110		18,215					92,259		22,105	62,924	62,934 93
45	1994	211,525	112,725	4,700	14,811		61,970	194,206		17,319					74,940		25,729	66,532	66,558 94
46	1995	212,651	113,710	2,800	9,093		63,247	188,356		24,295					50,646		30,891	71,572	71,720 95
47	1996	213,142	112,228	1,800	8,778		62,896	185,701		27,440					23,205		35,606	76,282	76,435 96
48	1997	213,655	101,425		15,298		60,942	177,665		35,990		12,784			54,949		54,949	95,593	95,778 97
49	1998	213,655	101,331		15,277		58,857	175,465		38,189					82,453		123,097	123,283	38,189 98
50	1999	213,640	101,237		14,859		57,316	173,412		40,227					125,113		164,897	165,942	40,227 99
51	2000	211,411	101,143		11,567		56,295	169,005		42,405					162,961		201,943	203,790	42,405 00
52	2001	211,958	100,995		18,397		54,852	174,245		37,713					190,469		227,754	231,298	37,713 01
53	2002	211,607	100,901		16,291		53,436	170,628		40,979					209,488		253,657	258,314	32,982 02
54	2003	211,650	100,807		9,512		52,740	163,059		48,591					256,349		300,374	305,175	48,591 03
55	2004	211,691	100,713		9,497		51,632	161,843		49,849					5,537		280,252	328,861	44,311 04
56	2005	211,731	100,619		11,999		50,019	162,637		49,094					49,094		262,583	359,933	366,041 05
57	2006	211,783	100,525		16,685		48,003	165,213		46,570					234,294		376,554	384,321	46,570 06
58	2007	211,425	100,431		16,672		45,619	162,723		48,702					48,702		207,800	398,115	406,726 07
59	2008	211,504	100,337		16,644		43,044	160,025		51,479					51,479		174,420	415,568	429,530 08
60	2009	211,438	100,243		17,234		39,423	156,906		54,532					54,532		125,215	419,067	429,956 09
61	2010	211,400	100,149		16,646		35,420	152,216		59,184					59,184		83,510	434,098	447,435 10
62	2011	211,393	100,055		40,464		32,726	173,246		38,147					64,533		452,148	466,605	452,148 11
63	2012	211,372	99,961		37,228		31,827	163,017		42,356					39,356		63,754	490,448	505,182 12
64	2013	211,383	99,961		31,582		31,677	163,221		48,162					77,195		503,468	518,993	47,791 13
65	2014	211,369	99,961		9,647		29,965	139,574		71,795					55,964		40,534	521,808	538,297 14
66	2015	211,167	99,961		7,925		27,720	135,607		75,560					13,604		49,887	532,720	561,254 15
67	2016	211,194	99,961		11,127		27,115	138,204		72,990					17,880		59,975	556,494	589,222 16</

21	22	23	24	25	26	27	28	29	30
POWER INVESTMENTS			IRRIGATION AID						
UNPAID FEDERAL INVESTMENT	ALLOWABLE UNPAID FEDERAL INVESTMENT	CUMULATIVE FEDERAL INVESTMENT	PRINCIPAL PAYMENTS	UNPAID FEDERAL INVESTMENT	ALLOWABLE UNPAID FEDERAL INVESTMENT	CUMULATIVE FEDERAL INVESTMENT			CUMULATIVE EARNED SURPLUS
5,466	6,744	6,744		5,656	5,656	5,656			
13,869	15,630	15,630		5,656	5,656	5,656			
28,392	30,870	30,870		22,145	22,145	22,145			
51,355	54,549	54,549		22,597	22,597	22,597			
111,026	113,511	113,511		23,697	23,697	23,697			
200,034	201,970	201,970		25,210	25,210	25,210			
340,236	340,032	340,032		47,606	47,606	47,606			
358,305	353,745	353,745		85,267	85,267	85,267			
396,580	391,242	391,242		91,816	91,816	91,816			
397,907	363,305	368,305		96,352	96,352	96,352			
421,497	407,986	407,986		162,857	162,857	162,857			
513,901	497,400	497,400		162,857	162,857	162,857			
577,126	556,386	556,386		169,921	169,921	169,921			
678,690	668,078	668,078		204,433	204,433	204,433			
697,356	687,008	687,008		222,897	222,897	222,897			
770,341	761,094	761,094		222,897	222,897	222,897			
827,381	826,993	826,993		228,396	228,396	228,396			
861,389	869,347	869,347		244,233	244,233	244,233			
869,949	882,278	882,278		245,812	245,812	245,812			
860,780	890,467	890,467		245,812	245,812	245,812			
828,706	891,629	891,629		245,812	245,812	245,812			
814,673	905,592	905,592		266,421	266,421	266,421			
806,774	932,187	932,187		266,421	266,421	266,421			
784,719	933,149	933,149		266,421	266,421	266,421			
791,472	964,712	964,712		266,421	266,421	266,421			
760,074	968,249	968,249		266,421	266,421	266,421			
673,795	971,609	971,609		266,421	266,421	266,421			
629,541	974,725	974,725		266,421	266,421	266,421			
609,002	992,780	992,780		268,717	268,717	268,717			
543,242	994,358	994,358		268,717	268,717	268,717			
540,706	1,029,722	1,029,722		268,717	268,717	268,717			
523,171	1,038,906	1,038,906		268,717	268,717	268,717			
512,796	1,052,192	1,052,192		294,408	294,408	294,408			
427,840	1,009,207	1,009,207		291,726	291,726	291,726			
434,990	1,029,667	1,029,667		303,414	303,414	303,414			
415,302	1,064,954	1,064,954		345,885	345,885	345,885			
475,239	1,154,562	1,154,562		347,083	347,083	347,083			
441,153	1,162,575	1,162,575		413,512	413,512	413,512			
594,036	1,333,633	1,333,633		421,882	421,882	421,882			
665,352	1,404,949	1,404,949		422,928	422,928	422,928			
680,281	1,419,879	1,419,879		422,928	422,928	422,928			
680,281	1,419,879	1,419,879		422,928	422,928	422,928			
844,130	1,583,728	1,583,728		459,702	459,702	459,702			
870,123	1,609,721	1,609,721		459,702	459,702	459,702			
922,373	1,661,971	1,661,971		459,702	459,702	459,702			
959,389	1,696,995	1,696,995		515,038	515,038	515,038			
991,878	1,729,417	1,731,475		631,505	631,505	631,505			
991,878	1,728,816	1,731,475		631,505	631,505	631,505			
979,094	1,728,581	1,731,475		631,505	631,505	631,505			
940,904	1,726,436	1,731,475		631,505	631,505	631,505			
900,677	1,726,241	1,731,475		631,505	631,505	631,505			
858,272	1,725,119	1,731,475		631,505	631,505	631,505			
820,558	1,716,731	1,731,475		631,505	631,505	631,505			
787,576	1,702,347	1,731,475		631,505	631,505	631,505			
738,985	1,679,997	1,731,475		631,505	631,505	631,505			
694,674	1,624,343	1,731,475		631,505	631,505	631,505			
694,674	1,540,849	1,731,475		631,505	631,505	631,505			
694,674	1,410,535	1,731,475		631,505	631,505	631,505			
694,674	1,397,592	1,731,475		631,505	631,505	631,505			
694,674	1,362,199	1,731,475		690,206	690,206	690,206			
694,674	1,362,199	1,731,475		748,907	748,907	748,907			
694,674	1,343,488	1,731,475		807,608	807,608	807,608			
694,674	1,258,448	1,731,475		866,309	866,309	866,309			
691,674	1,202,351	1,731,475		925,010	925,010	925,010			
643,882	1,096,130	1,731,475		983,711	983,711	983,711			
628,051	1,070,127	1,731,475		1,042,412	1,042,412	1,042,412			
566,096	1,007,670	1,731,475		1,101,113	1,101,113	1,101,113			
510,986	944,999	1,731,475		1,159,814	1,159,814	1,159,814			
500,106	904,577	1,731,475		1,218,515	1,218,515	1,218,515			
460,974	892,263	1,731,475		1,277,216	1,277,216	1,277,216			
376,134	884,413	1,731,475		1,335,917	1,335,917	1,335,917			

FY
:50
:51
:52
:53
:54
:55
:56
:57
:58
:59
:60
:61
:62
:63
:64
:65
:66
:67
:68
:69
:70
:71
:72
:73
:74
:75
:76
:77
:78
:79
:80
:81
:82
:83
:84
:85
:86
:87
:88
:89
:90
:91
:92
:93
:94
:95
:96
:97
:98
:99
:100
:101
:102
:103
:104
:105
:106
:107
:108
:109
:110
:111
:112
:113
:114
:115
:116
:117
:118
:119

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
STUDY YEAR	F. Y. OR C. Y.	TOTAL REVENUE	EXPENSES						PRIOR YEAR ADJUSTMENTS	REVENUE AFTER ANNUAL EXPENSES	PRINCIPAL PAYMENTS ON CAPITALIZED ANNUAL EXPENSE DEFICITS	NET REVENUE FOR INVESTMENT REPAYMENT	PRINCIPAL PAYMENTS ON CAPITALIZED REQUIRED PAYMENTS DEFICITS	TOTAL UNPAID: ANNUAL EXPENSE AND REQUIRED: PAYMENT DEFICITS	REPLACEMENTS				
			OPERATIONS AND MAINTENANCE EXPENSE	CAPACITY AND/OR ENERGY PURCHASE EXPENSE	OTHER EXPENSE	INTEGRATED PROJECTS	INTEREST EXPENSES	TOTAL EXPENSES							PRINCIPAL PAYMENTS	UNPAID FEDERAL INVESTMENT	ALLOWABLE UNPAID FEDERAL INVESTMENT	CUMULATIVE FEDERAL INVESTMENT	PRINCIPAL PAYMENTS
70	2020	204,242	99,750			7,754	10,164	117,668		86,574		86,574		15,856			586,604	636,253	26,329
71	2021	204,284	99,750			7,952	7,863	115,565		88,718		88,718		5,130			589,620	641,384	83,588
72	2022	204,296	99,750			7,945	6,026	113,721		90,574		90,574		39,551			625,828	680,935	51,023
73	2023	204,308	99,750			9,741	4,316	113,808		90,500		90,500		4,338			621,106	685,273	86,162
74	2024	204,349	99,750			7,542	2,133	109,425		94,924		94,924		6,418			623,306	691,691	88,506
75	2025	204,361	99,750			7,549	507	107,806		96,555		96,555		17,422			638,848	709,113	40,525
76	2026	204,388	99,750			9,574		109,324		95,064		95,064		34,832			669,363	743,945	
77	2027	203,323	94,855			9,879	3,062	107,796		95,527		95,527		95,527	65,993		828,510	905,465	
78	2028	203,377	94,855			9,653	3,083	107,591		95,786		95,786		95,786	467		854,570	935,725	
79	2029	203,373	94,855			9,760	20	104,635		98,738		98,738		56,379			907,253	991,637	
80	2030	203,385	94,855			9,560		104,414		98,970		98,970		50,293			954,964	1,041,930	
81	2031	200,283	94,855			12,753		107,608		92,675		92,675		43,951			981,197	1,085,881	
82	2032	200,309	94,855			10,074		104,929		95,380		95,380		3,800			981,418	1,089,681	
83	2033	200,336	94,855			10,733		105,588		94,748		94,748		26,842			982,000	1,116,522	
84	2034	200,348	94,855			10,733		105,588		94,760		94,760		12,706			981,898	1,129,228	
85	2035	200,376	94,855			10,733		105,588		94,787		94,787		15,559			994,843	1,144,787	
86	2036	200,414	94,855			10,733		105,588		94,826		94,826		12,045			990,637	1,156,831	
87	2037	200,426	94,855			10,733		105,588		94,838		94,838		38,321			1,012,251	1,195,152	
88	2038	200,454	94,855			10,733		105,588		94,866		94,866		24,585			1,015,916	1,219,737	
89	2039	200,480	94,855			10,733		105,588		94,892		94,892		25,163			1,014,695	1,244,900	
90	2040	193,805	94,609			10,733		105,343		88,463		88,463		18,676			1,017,946	1,263,576	
91	2041	193,759	94,609			10,733		105,343		88,417		88,417		8,194			1,016,585	1,271,770	
92	2042	193,801	94,609			10,733		105,343		88,458		88,458		13,926			1,025,514	1,285,696	
93	2043	193,813	94,609			10,733		105,343		88,470		88,470		26,392			1,025,415	1,312,088	
94	2044	193,838	94,609			10,733		105,343		88,495		88,495		45,028			1,024,784	1,357,116	
95	2045	193,833	94,609			10,733		105,343		88,491		88,491		34,282			1,024,306	1,391,398	
96	2046	193,874	94,609			10,733		105,343		88,532		88,532		15,243			1,024,306	1,406,641	
97	2047	193,887	94,609			10,733		105,343		88,544		88,544		17,105			1,024,306	1,423,747	
98	2048	193,899	94,609			10,733		105,343		88,556		88,556		19,304			1,024,306	1,443,051	
99	2049	193,926	94,609			10,733		105,343		88,583		88,583		4,213			1,024,306	1,447,264	
100	2050	193,952	94,609			10,733		105,343		88,610		88,610		8,716			1,024,306	1,455,980	
101	2051	193,964	94,609			10,733		105,343		88,622		88,622		13,337			1,024,306	1,469,316	
102	2052	194,004	94,609			10,733		105,343		88,661		88,661		26,417			1,024,306	1,495,733	
103	2053	194,016	94,609			10,733		105,343		88,674		88,674		15,340			1,024,306	1,511,073	
104	2054	194,042	94,609			10,733		105,343		88,700		88,700		25,788			1,024,306	1,536,861	
105	2055	194,070	94,609			10,733		105,343		88,727		88,727		17,522			1,024,306	1,554,383	
106	2056	194,082	94,609			10,733		105,343		88,739		88,739		31,943			1,024,306	1,586,326	
107	2057	194,109	94,609			10,733		105,343		88,766		88,766		17,165			1,024,306	1,603,491	
108	2058	194,135	94,609			10,733		105,343		88,793		88,793		48,960			1,024,306	1,652,451	
109	2059	194,147	94,609			10,733		105,343		88,805		88,805		10,949			1,024,306	1,663,400	
110	2060	186,803	94,085			10,733		104,818		81,985		81,985		18,109			1,024,306	1,681,509	
111	2061	186,879	94,077			10,733		104,810		82,069		82,069		35,651			1,024,306	1,717,159	
112	2062	186,956	94,067			10,733		104,800		82,156		82,156		48,117			1,024,306	1,765,277	
113	2063	187,046	94,059			10,733	5,124	109,916		77,130		77,130		77,130	113,880		1,024,306	1,956,287	
114	2064	187,134	94,052			10,733	8,723	113,507		73,627		73,627		73,627	82,405		1,024,306	1,998,439	
115	2065	187,209	94,043			10,733	6,425	111,202		76,007		76,007		76,007	61,274		1,024,306	2,053,316	
116	2066	187,298	94,036			10,733	3,583	108,352		78,946		78,946		78,946	17,309		1,024,306	2,088,296	
117	2067	187,384	94,029			10,733	757	105,519		81,865		81,865		47,479			1,024,306	2,118,466	
118	2068	187,474	94,020			10,733		104,753		82,720		82,720		9,389			1,024,306	2,127,855	
119	2069	187,547	94,013			10,733		104,746		82,801		82,801		16,937			1,024,306	2,144,792	
120	2070	187,635	94,006			10,733		104,739		82,897		82,897		22,580			1,024,306	2,167,372	
121	2071	187,710	93,997			10,733		104,730		82,980		82,980		3,676</					

21	22	23	24	25	26	27	28	29	30	
IRRIGATION AID										
POWER INVESTMENTS										
UNPAID FEDERAL INVESTMENT	ALLOWABLE UNPAID FEDERAL INVESTMENT	CUMULATIVE FEDERAL INVESTMENT	PRINCIPAL PAYMENTS	UNPAID FEDERAL INVESTMENT	ALLOWABLE UNPAID FEDERAL INVESTMENT	CUMULATIVE FEDERAL INVESTMENT			CUMULATIVE EARNED SURPLUS	
349,805	882,833	1,731,475	44,389	1,350,229	1,350,229	1,394,618				FY
266,217	869,510	1,731,475		1,408,930	1,408,930	1,453,319				:20
215,193	844,218	1,731,475		1,467,631	1,467,631	1,512,020				:21
129,031	843,243	1,731,475		1,526,332	1,526,332	1,570,721				:22
40,525	813,197	1,731,475		1,585,033	1,585,033	1,629,422				:23
	809,629	1,731,475	38,608	1,605,126	1,643,734	1,688,123				:24
	806,630	1,731,475	60,232	1,603,595	1,702,435	1,746,024				:25
	803,665	1,731,475		1,662,296	1,761,136	1,805,525				:26
	786,491	1,731,475		1,720,997	1,819,837	1,864,226				:27
	784,984	1,731,475	42,359	1,737,339	1,878,538	1,922,927				:28
	751,332	1,731,475	48,677	1,747,363	1,937,239	1,981,628				:29
	742,529	1,731,475	48,724	1,757,340	1,995,940	2,040,329				:30
	729,891	1,731,475	91,581	1,724,460	2,054,641	2,099,030				:31
	729,340	1,731,475	67,907	1,715,255	2,113,342	2,157,731				:32
	709,010	1,731,475	82,035	1,691,901	2,172,043	2,216,432				:33
	673,910	1,731,475	79,229	1,671,373	2,230,744	2,275,133				:34
	584,837	1,731,475	82,782	1,647,293	2,289,445	2,333,834				:35
	576,866	1,731,475	56,515	1,649,476	2,348,146	2,392,535				:36
	405,899	1,731,475	70,281	1,637,896	2,370,073	2,431,236				:37
	326,535	1,731,475	69,729	1,626,868	2,428,774	2,509,937				:38
	311,605	1,731,475	69,766	1,615,783	2,450,701	2,568,638				:39
	147,756	1,731,475	80,223	1,594,262	2,454,066	2,627,339				:40
	121,763	1,731,475	74,532	1,578,430	2,512,767	2,686,040				:41
	69,513	1,731,475	62,078	1,575,053	2,571,468	2,744,741				:42
	32,497	1,731,475	43,467	1,590,287	2,386,299	2,803,442				:43
	9	1,731,475	54,209	1,594,779	2,445,000	2,862,143				:44
		1,731,475	73,289	1,580,192	2,369,032	2,920,844				:45
		1,731,475	71,439	1,567,454	2,427,733	2,979,545				:46
		1,731,475	69,252	1,556,903	2,486,434	3,038,246				:47
		1,731,475	84,371	1,531,234	2,545,135	3,096,947				:48
		1,731,475	79,894	1,510,041	2,603,836	3,155,648				:49
		1,731,475	75,285	1,493,457	2,546,070	3,214,349				:50
		1,731,475	62,244	1,489,913	2,604,771	3,273,050				:51
		1,731,475	73,334	1,475,280	2,663,472	3,331,751				:52
		1,731,475	62,912	1,471,070	2,722,173	3,390,452				:53
		1,731,475	71,205	1,458,566	2,780,874	3,449,153				:54
		1,731,475	56,796	1,450,471	2,839,575	3,507,854				:55
		1,731,475	71,602	1,447,570	2,898,276	3,566,555				:56
		1,731,475	39,832	1,466,439	2,956,977	3,625,256				:57
		1,731,475	77,856	1,447,284	3,015,678	3,683,957				:58
		1,731,475	63,876	1,442,109	3,074,379	3,742,658				:59
		1,731,475	46,419	1,454,391	3,133,080	3,801,359				:60
		1,731,475	34,039	1,479,054	3,191,781	3,860,060				:61
		1,731,475		1,537,755	3,250,482	3,918,761				:62
		1,731,475		1,596,456	3,309,183	3,977,462				:63
		1,731,475		1,655,157	3,367,884	4,036,163				:64
		1,731,475		1,713,858	3,426,585	4,094,864				:65
		1,731,475	34,386	1,738,173	3,426,585	4,153,565				:66
		1,731,475	73,331	1,723,542	3,426,585	4,212,266				:67
		1,731,475	65,864	1,716,379	3,426,585	4,270,967				:68
		1,731,475	60,316	1,714,763	3,426,585	4,329,668				:69
		1,731,475	79,304	1,694,160	3,426,585	4,388,369				:70
		1,731,475	77,942	1,674,919	3,426,585	4,447,070				:71
		1,731,475	70,744	1,662,876	3,426,585	4,505,771				:72
		1,731,475	58,108	1,663,469	3,426,585	4,564,472				:73
		1,731,475	41,226	1,680,944	3,426,585	4,623,173				:74
		1,731,475	65,648	1,673,997	3,426,585	4,681,874				:75
		1,731,475	76,557	1,656,142	3,426,585	4,740,575				:76
		1,731,475	73,200	1,641,643	3,426,585	4,799,276				:77
		1,731,475	60,670	1,639,674	3,426,585	4,857,977				:78
		1,731,475	61,189	1,637,186	3,426,585	4,916,678				:79
		1,731,475	76,830	1,619,056	3,426,585	4,975,379				:80
		1,731,475	74,578	1,603,179	3,426,585	5,034,080				:81
		1,731,475	78,154	1,583,777	3,426,585	5,092,781				:82
		1,731,475	57,717	1,584,711	3,426,585	5,151,482				:83
		1,731,475	75,745	1,567,667	3,426,585	5,210,183				:84
		1,731,475	47,317	1,579,051	3,426,585	5,268,884				:85
		1,731,475	70,967	1,566,785	3,426,585	5,327,585				:86
		1,731,475	48,433	1,577,053	3,426,585	5,386,286				:87
		1,731,475	44,088	1,591,667	3,426,585	5,444,987				:88
		1,731,475	43,496	1,606,890	3,426,585	5,503,706				:89
		1,731,475	3,896,816	1,606,890	3,426,585	5,503,706				:90

APPENDIX F (DETAIL OF OTHER REVENUES AND O&M EXPENSES)
March 1991

PROJECTED OTHER REVENUE (\$)
FROM FY 1990 PRS
PICK-SLOAN MISSOURI BASIN PROGRAM

Page 56

YEAR	JTS WHITTING \$	OTHER WHITTING TOTAL \$	NON MRD PUMPING \$	INDIAN IRRIG \$	SPA AMORT \$	CANYON FERRY DUES/FEES \$	ABOVE ADVERSE PEAKING \$	SPECIAL SALES \$	LAO OTHER REVENUE \$	WHITTING SURCHARGE \$	TOTAL OTHER REVENUE \$
1991	22,740,215	3,751,679	47,500	19,720	16,163	376,087	3,604,000	7,810,280	8,446,868	1,193,994	48,056,194
1992	25,262,846	3,746,217	47,500	19,720	16,163	376,087	3,604,000	26,266,320	8,660,408	1,191,546	69,190,808
1993	25,262,846	3,746,217	47,500	19,720	16,163	376,087	6,317,000	26,266,320	8,818,436	1,191,546	72,081,836
1994	25,262,846	3,746,217	47,500	19,720	16,163	376,087	6,317,000	25,928,320	8,976,592	1,191,546	71,981,992
1995	25,262,846	3,746,217	47,500	19,720	16,163	376,087	6,317,000	25,517,320	9,057,016	1,191,546	71,551,416
1996	25,262,846	3,746,217	47,500	19,720	16,163	376,087	6,317,000	25,444,320	8,755,644	1,191,546	71,177,044
1997	25,262,846	3,746,217	47,500	19,720	16,163	376,087	6,317,000	25,297,320	8,755,644	1,191,546	71,030,044
1998	25,262,846	3,746,217	47,500	19,720	16,163	376,087	6,317,000	25,297,320	8,755,644	1,191,546	71,030,044
1999	25,262,846	3,746,217	47,500	19,720	16,163	376,087	6,317,000	25,282,320	8,755,644	1,191,546	71,015,044
2000	25,262,846	3,746,217	47,500	19,720	16,163	376,087	6,317,000	25,053,320	8,755,644	1,191,546	68,786,044
2001	25,262,846	3,729,837	47,500	19,720	16,163	376,087	6,317,000	23,039,320	8,755,644	1,184,234	68,748,351
2002	25,262,846	3,729,837	47,500	19,720	16,163	376,087	6,317,000	23,083,320	8,755,644	1,184,234	68,792,351
2003	25,262,846	3,729,837	47,500	19,720	16,163	376,087	6,317,000	23,156,320	8,755,644	1,184,234	68,865,351
2004	25,262,846	3,729,837	47,500	19,720	16,163	376,087	6,317,000	23,244,320	8,755,644	1,184,234	68,953,351
2005	25,262,846	3,729,837	47,500	19,720	16,163	376,087	6,317,000	23,347,320	8,755,644	1,184,234	69,056,351
2006	25,262,846	3,729,837	47,500	19,720	16,163	376,087	6,317,000	23,479,320	8,755,644	1,184,234	69,188,351
2007	25,262,846	3,729,837	47,500	19,720	16,163	376,087	6,317,000	23,610,320	8,755,644	1,184,234	69,309,351
2008	25,262,846	3,729,837	47,500	19,720	16,163	376,087	6,317,000	23,762,320	8,755,644	1,184,234	69,471,351
2009	25,262,846	3,729,837	47,500	19,720	16,163	376,087	6,317,000	23,931,320	8,755,644	1,184,234	69,600,351
2010	25,262,846	3,729,837	47,500	19,720	16,163	376,087	6,317,000	23,450,320	8,755,644	1,184,234	69,159,351
2011	25,262,846	3,729,837	47,500	19,720	16,163	376,087	6,317,000	23,508,320	8,755,644	1,184,234	69,217,351
2012	25,262,846	3,729,837	47,500	19,720	16,163	376,087	6,317,000	23,552,320	8,755,644	1,184,234	69,261,351
2013	25,262,846	3,729,837	47,500	19,720	16,163	376,087	6,317,000	23,611,320	8,755,644	1,184,234	69,320,351
2014	25,262,846	3,729,837	47,500	19,720	16,163	376,087	6,317,000	23,640,320	8,755,644	1,184,234	69,349,351
2015	25,262,846	3,729,837	47,500	19,720	16,163	376,087	6,317,000	23,684,320	8,755,644	1,184,234	69,393,351
2016	25,262,846	3,729,837	47,500	19,720	16,163	376,087	6,317,000	23,743,320	8,755,644	1,184,234	69,452,351
2017	25,262,846	3,729,837	47,500	19,720	16,163	376,087	6,317,000	23,787,320	8,755,644	1,184,234	69,496,351
2018	25,262,846	3,729,837	47,500	19,720	16,163	376,087	6,317,000	23,860,320	8,755,644	1,184,234	69,569,351
2019	25,262,846	3,729,837	47,500	19,720	16,163	376,087	6,317,000	23,904,320	8,755,644	1,184,234	69,613,351
2020	25,262,846	3,664,961	47,500	19,720	16,163	376,087	6,317,000	20,898,320	8,755,644	1,155,269	66,513,511
2021	25,262,846	3,664,961	47,500	19,720	16,163	376,087	6,317,000	20,971,320	8,755,644	1,155,269	66,586,511
2022	25,262,846	3,664,961	47,500	19,720	16,163	376,087	6,317,000	21,015,320	8,755,644	1,155,269	66,630,511
2023	25,262,846	3,664,961	47,500	19,720	16,163	376,087	6,317,000	21,059,320	8,755,644	1,155,269	66,674,511
2024	25,262,846	3,664,961	47,500	19,720	16,163	376,087	6,317,000	21,132,320	8,755,644	1,155,269	66,747,511
2025	25,262,846	3,664,961	47,500	19,720	16,163	376,087	6,317,000	21,176,320	8,755,644	1,155,269	66,791,511
2026	25,262,846	3,664,961	47,500	19,720	16,163	376,087	6,317,000	21,235,320	8,755,644	1,155,269	66,850,511
2027	25,262,846	2,587,661	47,500	19,720	16,163	376,087	6,317,000	21,279,320	8,755,644	1,155,269	65,817,211
2028	25,262,846	2,587,661	47,500	19,720	16,163	376,087	6,317,000	21,367,320	8,755,644	1,155,269	65,905,211
2029	25,262,846	2,587,661	47,500	19,720	16,163	376,087	6,317,000	21,411,320	8,755,644	1,155,269	65,949,211
2030	25,262,846	2,587,661	47,500	19,720	16,163	376,087	6,317,000	21,455,320	8,755,644	1,155,269	65,993,211
2031	25,262,846	2,587,661	47,500	19,720	16,163	376,087	6,317,000	21,514,320	8,626,389	1,155,269	62,922,956
2032	25,262,846	2,587,661	47,500	19,720	16,163	376,087	6,317,000	21,572,320	8,626,389	1,155,269	62,980,956
2033	25,262,846	2,587,661	47,500	19,720	16,163	376,087	6,317,000	21,631,320	8,626,389	1,155,269	63,039,956
2034	25,262,846	2,587,661	47,500	19,720	16,163	376,087	6,317,000	21,675,320	8,626,389	1,155,269	63,083,956
2035	25,262,846	2,587,661	47,500	19,720	16,163	376,087	6,317,000	21,734,320	8,626,389	1,155,269	63,142,956
2036	25,262,846	2,587,661	47,500	19,720	16,163	376,087	6,317,000	21,807,320	8,626,389	1,155,269	63,215,956
2037	25,262,846	2,587,661	47,500	19,720	16,163	376,087	6,317,000	21,851,320	8,626,389	1,155,269	63,259,956
2038	25,262,846	2,587,661	47,500	19,720	16,163	376,087	6,317,000	21,910,320	8,626,389	1,155,269	63,318,956
2039	25,262,846	2,587,661	47,500	19,720	16,163	376,087	6,317,000	21,968,320	8,626,389	1,155,269	63,376,956
2040	25,262,846	2,512,186	47,500	19,720	16,163	376,087	6,317,000	18,213,320	8,626,389	1,121,574	59,512,785
2041	25,262,846	2,512,186	47,500	19,720	16,163	376,087	6,317,000	18,199,320	8,626,389	1,121,574	59,498,785
2042	25,262,846	2,512,186	47,500	19,720	16,163	376,087	6,317,000	18,272,320	8,626,389	1,121,574	59,571,785
2043	25,262,846	2,512,186	47,500	19,720	16,163	376,087	6,317,000	18,316,320	8,626,389	1,121,574	59,615,785
2044	25,262,846	2,512,186	47,500	19,720	16,163	376,087	6,317,000	18,375,320	8,626,389	1,121,574	59,674,785
2045	25,262,846	2,512,186	47,500	19,720	16,163	376,087	6,317,000	18,419,320	8,626,389	1,121,574	59,718,785
2046	25,262,846	2,512,186	47,500	19,720	16,163	376,087	6,317,000	18,492,320	8,626,389	1,121,574	59,791,785
2047	25,262,846	2,512,186	47,500	19,720	16,163	376,087	6,317,000	18,536,320	8,626,389	1,121,574	59,835,785
2048	25,262,846	2,512,186	47,500	19,720	16,163	376,087	6,317,000	18,580,320	8,626,389	1,121,574	59,879,785
2049	25,262,846	2,512,186	47,500	19,720	16,163	376,087	6,317,000	18,639,320	8,626,389	1,121,574	59,938,785
2050	25,262,846	2,512,186	47,500	19,720	16,163	376,087	6,317,000	18,697,320	8,626,389	1,121,574	59,996,785
2051	25,262,846	2,512,186	47,500	19,720	16,163	376,087	6,317,000	18,741,320	8,626,389	1,121,574	60,040,785
2052	25,262,846	2,512,186	47,500	19,720	16,163	376,087	6,317,000	18,815,320	8,626,389	1,121,574	60,114,785
2053	25,262,846	2,512,186	47,500	19,720	16,163	376,087	6,317,000	18,859,320	8,626,389	1,121,574	60,158,785
2054	25,262,846	2,512,186	47,500	19,720	16,163	376,087	6,317,000	18,917,320	8,626,389	1,121,574	60,216,785
2055	25,262,846	2,512,186	47,500	19,720	16,163	376,087	6,317,000	18,976,320	8,626,389	1,121,574	60,275,785
2056	25,262,846	2,512,186	47,500	19,720	16,163	376,087	6,317,000	19,020,320	8,626,389	1,121,574	60,319,785
2057	25,262,846	2,512,186	47,500	19,720	16,163	376,087	6,317,000	19,079,320	8,626,389	1,121,574	60,378,785
2058	25,262,846	2,512,186	47,500	19,720	16,163	376,087	6,317,000	19,137,320	8,626,389	1,121,574	60,436,785
2059	25,262,846	2,512,186	47,500	19,720	16,163	376,087	6,317,000	19,181,320	8,626,389	1,121,574	60,480,785
2060	25,262,846	2,350,959	47,500	19,720	16,163	376,087	6,317,000	19,873,000	8,626,389	1,049,593	60,939,258
2061	25,262,846	2,348,390	47,500	19,720	16,163	376,087	6,317,000	20,035,000	8,626,389	1,048,446	61,097,541
2062	25,262,846	2,345,500	47,500	19,720	16,163	376,087	6,317,000	20,211,000	8,626,389	1,047,156	61,269,300
2063	25,262,846	2,342,930	47,500	19,720	16,163	376,087	6,317,000	20,367,000	8,626,389	1,046,009	61,441,644
2064	25,262,846	2,340,692	47,500	19,720	16,163	376,087	6,317,000	20,548,000	8,626,389	1,045,005	61,599,392
2065	25,262,846	2,338,113	47,500	19,720	16,163	376,087	6,317,000	20,709,000	8,626,389	1,043,858	61,756,675
2066	25,262,846	2,335,865	47,500	19,72							

PROJECTED OTHER REVENUE (\$)
FROM FY 1991 PRS
PICK-SLOAN MISSOURI BASIN PROGRAM

page 57

YEAR	JTS WHITELAND \$	OTHER WHITELAND TOTAL \$	NON MRL PUMPING \$	INDIAN IRRI \$	SPA AMORT \$	CANYON FERRY HENTZ \$	ADVERSE PEAKING \$	SPECIAL SALES \$	LAO OTHER REVENUE \$	WHITELAND SURCHARGE \$	TOTAL OTHER REVENUE \$
1991	22,790,315	3,751,677	47,500	19,720	16,163	376,087	3,604,000	8,501,260	8,446,808	1,193,984	48,746,494
1992	25,262,846	3,746,217	47,500	19,720	16,163	376,087	3,604,000	14,649,320	8,660,400	1,191,546	57,573,808
1993	25,262,846	3,746,217	47,500	19,720	16,163	376,087	6,317,000	20,501,320	8,836,436	1,191,546	66,316,836
1994	25,262,846	3,746,217	47,500	19,720	16,163	376,087	6,317,000	22,951,320	8,976,592	1,191,546	68,904,992
1995	25,262,846	3,746,217	47,500	19,720	16,163	376,087	6,317,000	23,992,320	9,057,016	1,191,546	70,026,416
1996	25,262,846	3,746,217	47,500	19,720	16,163	376,087	6,317,000	24,784,320	8,755,644	1,191,546	70,517,044
1997	25,262,846	3,746,217	47,500	19,720	16,163	376,087	6,317,000	25,297,320	8,755,644	1,191,546	71,030,044
1998	25,262,846	3,746,217	47,500	19,720	16,163	376,087	6,317,000	25,297,320	8,755,644	1,191,546	71,030,044
1999	25,262,846	3,746,217	47,500	19,720	16,163	376,087	6,317,000	25,282,320	8,755,644	1,191,546	71,015,044
2000	25,262,846	3,746,217	47,500	19,720	16,163	376,087	6,317,000	25,053,320	8,755,644	1,191,546	68,796,044
2001	25,262,846	3,729,837	47,500	19,720	16,163	376,087	6,317,000	23,039,320	8,755,644	1,184,234	68,748,351
2002	25,262,846	3,729,837	47,500	19,720	16,163	376,087	6,317,000	23,063,320	8,755,644	1,184,234	68,792,351
2003	25,262,846	3,729,837	47,500	19,720	16,163	376,087	6,317,000	23,156,320	8,755,644	1,184,234	68,865,351
2004	25,262,846	3,729,837	47,500	19,720	16,163	376,087	6,317,000	23,244,320	8,755,644	1,184,234	68,953,351
2005	25,262,846	3,729,837	47,500	19,720	16,163	376,087	6,317,000	23,347,320	8,755,644	1,184,234	69,056,351
2006	25,262,846	3,729,837	47,500	19,720	16,163	376,087	6,317,000	23,479,320	8,755,644	1,184,234	69,188,351
2007	25,262,846	3,729,837	47,500	19,720	16,163	376,087	6,317,000	23,200,320	8,755,644	1,184,234	68,909,351
2008	25,262,846	3,729,837	47,500	19,720	16,163	376,087	6,317,000	23,362,320	8,755,644	1,184,234	69,071,351
2009	25,262,846	3,729,837	47,500	19,720	16,163	376,087	6,317,000	23,391,320	8,755,644	1,184,234	69,100,351
2010	25,262,846	3,729,837	47,500	19,720	16,163	376,087	6,317,000	23,450,320	8,755,644	1,184,234	69,159,351
2011	25,262,846	3,729,837	47,500	19,720	16,163	376,087	6,317,000	23,508,320	8,755,644	1,184,234	69,217,351
2012	25,262,846	3,729,837	47,500	19,720	16,163	376,087	6,317,000	23,552,320	8,755,644	1,184,234	69,261,351
2013	25,262,846	3,729,837	47,500	19,720	16,163	376,087	6,317,000	23,611,320	8,755,644	1,184,234	69,320,351
2014	25,262,846	3,729,837	47,500	19,720	16,163	376,087	6,317,000	23,640,320	8,755,644	1,184,234	69,349,351
2015	25,262,846	3,729,837	47,500	19,720	16,163	376,087	6,317,000	23,684,320	8,755,644	1,184,234	69,393,351
2016	25,262,846	3,729,837	47,500	19,720	16,163	376,087	6,317,000	23,743,320	8,755,644	1,184,234	69,452,351
2017	25,262,846	3,729,837	47,500	19,720	16,163	376,087	6,317,000	23,787,320	8,755,644	1,184,234	69,496,351
2018	25,262,846	3,729,837	47,500	19,720	16,163	376,087	6,317,000	23,860,320	8,755,644	1,184,234	69,569,351
2019	25,262,846	3,729,837	47,500	19,720	16,163	376,087	6,317,000	23,944,320	8,755,644	1,184,234	69,613,351
2020	25,262,846	3,664,961	47,500	19,720	16,163	376,087	6,317,000	20,898,320	8,755,644	1,155,269	66,513,511
2021	25,262,846	3,664,961	47,500	19,720	16,163	376,087	6,317,000	20,971,320	8,755,644	1,155,269	66,586,511
2022	25,262,846	3,664,961	47,500	19,720	16,163	376,087	6,317,000	21,015,320	8,755,644	1,155,269	66,630,511
2023	25,262,846	3,664,961	47,500	19,720	16,163	376,087	6,317,000	21,059,320	8,755,644	1,155,269	66,674,511
2024	25,262,846	3,664,961	47,500	19,720	16,163	376,087	6,317,000	21,132,320	8,755,644	1,155,269	66,747,511
2025	25,262,846	3,664,961	47,500	19,720	16,163	376,087	6,317,000	21,176,320	8,755,644	1,155,269	66,791,511
2026	25,262,846	3,664,961	47,500	19,720	16,163	376,087	6,317,000	21,235,320	8,755,644	1,155,269	66,850,511
2027	25,262,846	2,587,661	47,500	19,720	16,163	376,087	6,317,000	21,279,320	8,755,644	1,155,269	65,817,211
2028	25,262,846	2,587,661	47,500	19,720	16,163	376,087	6,317,000	21,367,320	8,755,644	1,155,269	65,905,211
2029	25,262,846	2,587,661	47,500	19,720	16,163	376,087	6,317,000	21,411,320	8,755,644	1,155,269	65,949,211
2030	25,262,846	2,587,661	47,500	19,720	16,163	376,087	6,317,000	21,455,320	8,755,644	1,155,269	65,993,211
2031	25,262,846	2,587,661	47,500	19,720	16,163	376,087	6,317,000	21,514,320	8,755,644	1,155,269	66,047,211
2032	25,262,846	2,587,661	47,500	19,720	16,163	376,087	6,317,000	21,572,320	8,755,644	1,155,269	66,101,211
2033	25,262,846	2,587,661	47,500	19,720	16,163	376,087	6,317,000	21,631,320	8,755,644	1,155,269	66,155,211
2034	25,262,846	2,587,661	47,500	19,720	16,163	376,087	6,317,000	21,675,320	8,755,644	1,155,269	66,209,211
2035	25,262,846	2,587,661	47,500	19,720	16,163	376,087	6,317,000	21,734,320	8,755,644	1,155,269	66,263,211
2036	25,262,846	2,587,661	47,500	19,720	16,163	376,087	6,317,000	21,807,320	8,755,644	1,155,269	66,317,211
2037	25,262,846	2,587,661	47,500	19,720	16,163	376,087	6,317,000	21,851,320	8,755,644	1,155,269	66,371,211
2038	25,262,846	2,587,661	47,500	19,720	16,163	376,087	6,317,000	21,910,320	8,755,644	1,155,269	66,425,211
2039	25,262,846	2,587,661	47,500	19,720	16,163	376,087	6,317,000	21,968,320	8,755,644	1,155,269	66,479,211
2040	25,262,846	2,512,186	47,500	19,720	16,163	376,087	6,317,000	18,213,320	8,755,644	1,121,574	59,512,785
2041	25,262,846	2,512,186	47,500	19,720	16,163	376,087	6,317,000	18,199,320	8,755,644	1,121,574	59,498,785
2042	25,262,846	2,512,186	47,500	19,720	16,163	376,087	6,317,000	18,272,320	8,755,644	1,121,574	59,571,785
2043	25,262,846	2,512,186	47,500	19,720	16,163	376,087	6,317,000	18,316,320	8,755,644	1,121,574	59,615,785
2044	25,262,846	2,512,186	47,500	19,720	16,163	376,087	6,317,000	18,375,320	8,755,644	1,121,574	59,674,785
2045	25,262,846	2,512,186	47,500	19,720	16,163	376,087	6,317,000	18,419,320	8,755,644	1,121,574	59,718,785
2046	25,262,846	2,512,186	47,500	19,720	16,163	376,087	6,317,000	18,492,320	8,755,644	1,121,574	59,791,785
2047	25,262,846	2,512,186	47,500	19,720	16,163	376,087	6,317,000	18,536,320	8,755,644	1,121,574	59,835,785
2048	25,262,846	2,512,186	47,500	19,720	16,163	376,087	6,317,000	18,580,320	8,755,644	1,121,574	59,879,785
2049	25,262,846	2,512,186	47,500	19,720	16,163	376,087	6,317,000	18,639,320	8,755,644	1,121,574	59,938,785
2050	25,262,846	2,512,186	47,500	19,720	16,163	376,087	6,317,000	18,697,320	8,755,644	1,121,574	59,996,785
2051	25,262,846	2,512,186	47,500	19,720	16,163	376,087	6,317,000	18,741,320	8,755,644	1,121,574	60,040,785
2052	25,262,846	2,512,186	47,500	19,720	16,163	376,087	6,317,000	18,815,320	8,755,644	1,121,574	60,114,785
2053	25,262,846	2,512,186	47,500	19,720	16,163	376,087	6,317,000	18,859,320	8,755,644	1,121,574	60,158,785
2054	25,262,846	2,512,186	47,500	19,720	16,163	376,087	6,317,000	18,917,320	8,755,644	1,121,574	60,216,785
2055	25,262,846	2,512,186	47,500	19,720	16,163	376,087	6,317,000	18,976,320	8,755,644	1,121,574	60,275,785
2056	25,262,846	2,512,186	47,500	19,720	16,163	376,087	6,317,000	19,020,320	8,755,644	1,121,574	60,319,785
2057	25,262,846	2,512,186	47,500	19,720	16,163	376,087	6,317,000	19,079,320	8,755,644	1,121,574	60,378,785
2058	25,262,846	2,512,186	47,500	19,720	16,163	376,087	6,317,000	19,137,320	8,755,644	1,121,574	60,436,785
2059	25,262,846	2,512,186	47,500	19,720	16,163	376,087	6,317,000	19,181,320	8,755,644	1,121,574	60,480,785
2060	25,262,846	2,350,959	47,500	19,720	16,163	376,087	6,317,000	19,873,000	8,755,644	1,049,593	60,939,258
2061	25,262,846	2,348,300	47,500	19,720	16,163	376,087	6,317,000	20,035,000	8,755,644	1,048,446	61,097,541
2062	25,262,846	2,345,500	47,500	19,720	16,163	376,087	6,317,000	20,211,000	8,755,644	1,047,156	61,269,300
2063	25,262,846	2,342,930	47,500	19,720	16,163	376,087	6,317,000	20,387,000	8,755,644	1,046,000	61,441,644
2064	25,262,846	2,340,682	47,500	19,720	16,163	376,087	6,317,000	20,548,000	8,755,644	1,045,005	61,599,392
2065	25,262,846	2,338,113	47,500	19,720	16,163	376,087	6,317,000	20,709,000	8,755,644	1,043,858	61,756,675
2066	25,262,846	2,335,865	47,500	19,720							

PROJECTED O&M EXPENSES (\$)
FROM FY 1990 PRS
PICK-SLOAN MISSOURI BASIN PROGRAM

page 58

YEAR	WESTERN RAO O & M \$	LAO O & M \$	BUREAU O & M \$	CORPS O & M \$	ILLINOIS AREA WHITELING EXPENSE \$	WHITELING DISCOUNT \$	LAO WHITELING \$	BUFFALO BILL PAYMENT \$	TOTAL O & M EXPENSE \$
1991	38,624,000	21,051,900	9,329,053	26,130,000	3,600,000	5,100,000	2,343,400	2,520,684	198,699,037
1992	39,474,000	21,753,640	10,346,896	23,946,000	3,592,650	5,089,548	2,345,116	2,520,684	199,068,575
1993	40,245,000	22,032,861	9,680,945	19,700,000	3,592,650	5,089,548	2,346,834	2,666,499	195,354,402
1994	41,080,000	22,307,367	9,690,828	19,700,000	3,592,650	5,089,548	2,348,626	2,666,499	196,425,559
1995	41,812,000	22,597,509	9,164,405	19,700,000	3,592,650	5,089,548	2,350,420	2,666,499	196,993,072
1996	34,897,000	18,250,797	8,713,827	19,700,000	3,592,650	5,089,548	2,350,420	2,666,499	95,260,782
1997	34,897,000	18,250,797	8,713,827	19,700,000	3,592,650	5,089,548	2,350,420	2,666,499	95,260,782
1998	34,897,000	18,250,797	8,713,827	19,700,000	3,592,650	5,089,548	2,350,420	2,666,499	95,260,782
1999	34,897,000	18,250,797	8,713,827	19,700,000	3,592,650	5,089,548	2,350,420	2,666,499	95,260,782
2000	34,897,000	18,250,797	8,713,827	19,700,000	3,592,650	5,089,548	2,350,420	2,666,499	95,260,782
2001	34,897,000	18,250,797	8,713,827	19,700,000	3,570,602	5,058,352	2,350,420	2,666,499	95,207,497
2002	34,897,000	18,250,797	8,713,827	19,700,000	3,570,602	5,058,352	2,350,420	2,666,499	95,207,497
2003	34,897,000	18,250,797	8,713,827	19,700,000	3,570,602	5,058,352	2,350,420	2,666,499	95,207,497
2004	34,897,000	18,250,797	8,713,827	19,700,000	3,570,602	5,058,352	2,350,420	2,666,499	95,207,497
2005	34,897,000	18,250,797	8,713,827	19,700,000	3,570,602	5,058,352	2,350,420	2,666,499	95,207,497
2006	34,897,000	18,250,797	8,713,827	19,700,000	3,570,602	5,058,352	2,350,420	2,666,499	95,207,497
2007	34,897,000	18,250,797	8,713,827	19,700,000	3,570,602	5,058,352	2,350,420	2,666,499	95,207,497
2008	34,897,000	18,250,797	8,713,827	19,700,000	3,570,602	5,058,352	2,350,420	2,666,499	95,207,497
2009	34,897,000	18,250,797	8,713,827	19,700,000	3,570,602	5,058,352	2,350,420	2,666,499	95,207,497
2010	34,897,000	18,250,797	8,713,827	19,700,000	3,570,602	5,058,352	2,350,420	2,666,499	95,207,497
2011	34,897,000	18,250,797	8,713,827	19,700,000	3,570,602	5,058,352	2,350,420	2,666,499	95,207,497
2012	34,897,000	18,250,797	8,713,827	19,700,000	3,570,602	5,058,352	2,350,420	2,666,499	95,207,497
2013	34,897,000	18,250,797	8,713,827	19,700,000	3,570,602	5,058,352	2,350,420	2,666,499	95,207,497
2014	34,897,000	18,250,797	8,713,827	19,700,000	3,570,602	5,058,352	2,350,420	2,666,499	95,207,497
2015	34,897,000	18,250,797	8,713,827	19,700,000	3,570,602	5,058,352	2,350,420	2,666,499	95,207,497
2016	34,897,000	18,250,797	8,713,827	19,700,000	3,570,602	5,058,352	2,350,420	2,666,499	95,207,497
2017	34,897,000	18,250,797	8,713,827	19,700,000	3,570,602	5,058,352	2,350,420	2,666,499	95,207,497
2018	34,897,000	18,250,797	8,713,827	19,700,000	3,570,602	5,058,352	2,350,420	2,666,499	95,207,497
2019	34,897,000	18,250,797	8,713,827	19,700,000	3,570,602	5,058,352	2,350,420	2,666,499	95,207,497
2020	34,897,000	18,250,797	8,713,827	19,700,000	3,483,271	4,934,634	2,350,420	2,666,499	94,996,449
2021	34,897,000	18,250,797	8,713,827	19,700,000	3,483,271	4,934,634	2,350,420	2,666,499	94,996,449
2022	34,897,000	18,250,797	8,713,827	19,700,000	3,483,271	4,934,634	2,350,420	2,666,499	94,996,449
2023	34,897,000	18,250,797	8,713,827	19,700,000	3,483,271	4,934,634	2,350,420	2,666,499	94,996,449
2024	34,897,000	18,250,797	8,713,827	19,700,000	3,483,271	4,934,634	2,350,420	2,666,499	94,996,449
2025	34,897,000	18,250,797	8,713,827	19,700,000	3,483,271	4,934,634	2,350,420	2,666,499	94,996,449
2026	34,897,000	18,250,797	8,713,827	19,700,000	3,483,271	4,934,634	2,350,420	2,666,499	94,996,449
2027	34,897,000	18,250,797	8,713,827	19,700,000	3,483,271	4,934,634	121,420	0	90,100,950
2028	34,897,000	18,250,797	8,713,827	19,700,000	3,483,271	4,934,634	121,420	0	90,100,950
2029	34,897,000	18,250,797	8,713,827	19,700,000	3,483,271	4,934,634	121,420	0	90,100,950
2030	34,897,000	18,250,797	8,713,827	19,700,000	3,483,271	4,934,634	121,420	0	90,100,950
2031	34,897,000	18,250,797	8,713,827	19,700,000	3,483,271	4,934,634	121,420	0	90,100,950
2032	34,897,000	18,250,797	8,713,827	19,700,000	3,483,271	4,934,634	121,420	0	90,100,950
2033	34,897,000	18,250,797	8,713,827	19,700,000	3,483,271	4,934,634	121,420	0	90,100,950
2034	34,897,000	18,250,797	8,713,827	19,700,000	3,483,271	4,934,634	121,420	0	90,100,950
2035	34,897,000	18,250,797	8,713,827	19,700,000	3,483,271	4,934,634	121,420	0	90,100,950
2036	34,897,000	18,250,797	8,713,827	19,700,000	3,483,271	4,934,634	121,420	0	90,100,950
2037	34,897,000	18,250,797	8,713,827	19,700,000	3,483,271	4,934,634	121,420	0	90,100,950
2038	34,897,000	18,250,797	8,713,827	19,700,000	3,483,271	4,934,634	121,420	0	90,100,950
2039	34,897,000	18,250,797	8,713,827	19,700,000	3,483,271	4,934,634	121,420	0	90,100,950
2040	34,897,000	18,250,797	8,713,827	19,700,000	3,381,674	4,790,705	121,420	0	89,855,423
2041	34,897,000	18,250,797	8,713,827	19,700,000	3,381,674	4,790,705	121,420	0	89,855,423
2042	34,897,000	18,250,797	8,713,827	19,700,000	3,381,674	4,790,705	121,420	0	89,855,423
2043	34,897,000	18,250,797	8,713,827	19,700,000	3,381,674	4,790,705	121,420	0	89,855,423
2044	34,897,000	18,250,797	8,713,827	19,700,000	3,381,674	4,790,705	121,420	0	89,855,423
2045	34,897,000	18,250,797	8,713,827	19,700,000	3,381,674	4,790,705	121,420	0	89,855,423
2046	34,897,000	18,250,797	8,713,827	19,700,000	3,381,674	4,790,705	121,420	0	89,855,423
2047	34,897,000	18,250,797	8,713,827	19,700,000	3,381,674	4,790,705	121,420	0	89,855,423
2048	34,897,000	18,250,797	8,713,827	19,700,000	3,381,674	4,790,705	121,420	0	89,855,423
2049	34,897,000	18,250,797	8,713,827	19,700,000	3,381,674	4,790,705	121,420	0	89,855,423
2050	34,897,000	18,250,797	8,713,827	19,700,000	3,381,674	4,790,705	121,420	0	89,855,423
2051	34,897,000	18,250,797	8,713,827	19,700,000	3,381,674	4,790,705	121,420	0	89,855,423
2052	34,897,000	18,250,797	8,713,827	19,700,000	3,381,674	4,790,705	121,420	0	89,855,423
2053	34,897,000	18,250,797	8,713,827	19,700,000	3,381,674	4,790,705	121,420	0	89,855,423
2054	34,897,000	18,250,797	8,713,827	19,700,000	3,381,674	4,790,705	121,420	0	89,855,423
2055	34,897,000	18,250,797	8,713,827	19,700,000	3,381,674	4,790,705	121,420	0	89,855,423
2056	34,897,000	18,250,797	8,713,827	19,700,000	3,381,674	4,790,705	121,420	0	89,855,423
2057	34,897,000	18,250,797	8,713,827	19,700,000	3,381,674	4,790,705	121,420	0	89,855,423
2058	34,897,000	18,250,797	8,713,827	19,700,000	3,381,674	4,790,705	121,420	0	89,855,423
2059	34,897,000	18,250,797	8,713,827	19,700,000	3,381,674	4,790,705	121,420	0	89,855,423
2060	34,897,000	18,250,797	8,713,827	19,700,000	3,164,645	4,483,247	121,420	0	89,330,936
2061	34,897,000	18,250,797	8,713,827	19,700,000	3,161,187	4,478,348	121,420	0	89,322,578
2062	34,897,000	18,250,797	8,713,827	19,700,000	3,157,296	4,472,835	121,420	0	89,313,175
2063	34,897,000	18,250,797	8,713,827	19,700,000	3,153,837	4,467,936	121,420	0	89,304,817
2064	34,897,000	18,250,797	8,713,827	19,700,000	3,150,811	4,463,648	121,420	0	89,297,503
2065	34,897,000	18,250,797	8,713,827	19,700,000	3,147,352	4,458,749	121,420	0	89,289,145
2066	34,897,000	18,250,797	8,713,827	19,700,000	3,144,326	4,454,461	121,420	0	89,281,831
2067	34,897,000	18,250,797	8,713,827	19,700,000	3,141,299	4,450,174	121,420	0	89,274,518
2068	34,897,000	18,250,797	8,713,827	19,700,000	3,137,841	4,445,274	121,420	0	89,266,159
2069	34,897,000	18,250,797	8,713,827	19,700,000	3,134,814	4,440,987	121,420	0	89,258,846
2070	34,897,000	18,250,797	8,713,827	19,700,000	3,131,788	4,436,700	121,420	0	89,251,532
2071	34,897,000	18,250,797	8,713,827	19,700,000	3,128,330	4,431,800	121,420	0	89,243,174
2072	34,897,000	18,250,797	8,713,827	19,700,000	3,125,303	4,427,513	121,420	0	89,235,860
2073	34,897,000	18,250,797	8,713,827	19,700,000	3,121,845	4,422,613	121,420	0	89,227,502
2074	34,897,000	18,250,797	8,713,827	19,700,000	3,118,818	4,418,326	121,420	0	89,220,188
2075	34,897,000	18,250,797	8,713,827	19,700,000	3,115,792	4,414,039	121,420	0	89,212,875
2076	34,897,000	18,250,797	8,713,827	19,700,000	3,112,333	4,409,139	121,420	0	89,204,516
2077	34,897,000	18,250,797	8,713,827	19,700,000	3,108,010	4,403,014	121,420	0	89,194,068
2078	34,897,000	18,250,797	8,						

PROJECTED O&M EXPENSES (\$)
FROM FY 1991 PRS
PICK-SLOAN MISSOURI BASIN PROGRAM

Page 59

YEAR	WESTERN RAO O & M \$	LAO O & M \$	BURBANK O & M \$	CORPS O & M \$	BILLINGS AREA WHITELING EXPENSE \$	WHITELING DISCOUNT \$	LAO WHITELING \$	BUITATO BILL PAYMENT \$	WAPA CSRS \$	5% O&M INCREASE \$	TOTAL O & M EXPENSE \$
1991	94,474,000	21,051,000	9,329,053	26,130,000	3,600,000	5,100,000	2,343,400	2,520,600	0	0	108,696,037
1992	94,474,000	21,753,600	10,346,896	23,940,000	3,592,650	5,089,588	2,343,116	2,520,600	1,800,000	4,796,000	115,724,575
1993	61,245,000	22,032,601	9,660,945	19,700,000	3,592,650	5,089,588	2,346,858	2,666,499	1,780,000	4,570,000	111,710,402
1994	41,030,000	22,307,367	9,600,828	19,700,000	3,592,650	5,089,588	2,348,626	2,666,499	1,692,000	4,607,000	112,724,559
1995	34,897,000	22,597,509	9,164,405	19,700,000	3,592,650	5,089,588	2,350,420	2,666,499	1,598,000	4,619,000	113,210,072
1996	34,897,000	18,250,797	8,713,827	19,700,000	3,592,650	5,089,588	2,350,420	2,666,499	1,504,000	15,463,000	112,227,782
1997	34,897,000	18,250,797	8,713,827	19,700,000	3,592,650	5,089,588	2,350,420	2,666,499	1,410,000	4,734,000	101,424,782
1998	34,897,000	18,250,797	8,713,827	19,700,000	3,592,650	5,089,588	2,350,420	2,666,499	1,310,000	4,734,000	101,330,782
1999	34,897,000	18,250,797	8,713,827	19,700,000	3,592,650	5,089,588	2,350,420	2,666,499	1,222,000	4,734,000	101,236,782
2000	34,897,000	18,250,797	8,713,827	19,700,000	3,592,650	5,089,588	2,350,420	2,666,499	1,128,000	4,734,000	101,142,782
2001	34,897,000	18,250,797	8,713,827	19,700,000	3,570,602	5,058,352	2,350,420	2,666,499	1,034,000	4,734,000	100,995,497
2002	34,897,000	18,250,797	8,713,827	19,700,000	3,570,602	5,058,352	2,350,420	2,666,499	940,000	4,734,000	100,901,497
2003	34,897,000	18,250,797	8,713,827	19,700,000	3,570,602	5,058,352	2,350,420	2,666,499	846,000	4,734,000	100,807,497
2004	34,897,000	18,250,797	8,713,827	19,700,000	3,570,602	5,058,352	2,350,420	2,666,499	752,000	4,734,000	100,713,497
2005	34,897,000	18,250,797	8,713,827	19,700,000	3,570,602	5,058,352	2,350,420	2,666,499	658,000	4,734,000	100,619,497
2006	34,897,000	18,250,797	8,713,827	19,700,000	3,570,602	5,058,352	2,350,420	2,666,499	564,000	4,734,000	100,525,497
2007	34,897,000	18,250,797	8,713,827	19,700,000	3,570,602	5,058,352	2,350,420	2,666,499	470,000	4,734,000	100,431,497
2008	34,897,000	18,250,797	8,713,827	19,700,000	3,570,602	5,058,352	2,350,420	2,666,499	376,000	4,734,000	100,337,497
2009	34,897,000	18,250,797	8,713,827	19,700,000	3,570,602	5,058,352	2,350,420	2,666,499	282,000	4,734,000	100,243,497
2010	34,897,000	18,250,797	8,713,827	19,700,000	3,570,602	5,058,352	2,350,420	2,666,499	188,000	4,734,000	100,149,497
2011	34,897,000	18,250,797	8,713,827	19,700,000	3,570,602	5,058,352	2,350,420	2,666,499	94,000	4,734,000	100,055,497
2012	34,897,000	18,250,797	8,713,827	19,700,000	3,570,602	5,058,352	2,350,420	2,666,499	0	4,734,000	99,961,497
2013	34,897,000	18,250,797	8,713,827	19,700,000	3,570,602	5,058,352	2,350,420	2,666,499	0	4,734,000	99,961,497
2014	34,897,000	18,250,797	8,713,827	19,700,000	3,570,602	5,058,352	2,350,420	2,666,499	0	4,734,000	99,961,497
2015	34,897,000	18,250,797	8,713,827	19,700,000	3,570,602	5,058,352	2,350,420	2,666,499	0	4,734,000	99,961,497
2016	34,897,000	18,250,797	8,713,827	19,700,000	3,570,602	5,058,352	2,350,420	2,666,499	0	4,734,000	99,961,497
2017	34,897,000	18,250,797	8,713,827	19,700,000	3,570,602	5,058,352	2,350,420	2,666,499	0	4,734,000	99,961,497
2018	34,897,000	18,250,797	8,713,827	19,700,000	3,570,602	5,058,352	2,350,420	2,666,499	0	4,734,000	99,961,497
2019	34,897,000	18,250,797	8,713,827	19,700,000	3,570,602	5,058,352	2,350,420	2,666,499	0	4,734,000	99,961,497
2020	34,897,000	18,250,797	8,713,827	19,700,000	3,483,271	4,934,634	2,350,420	2,666,499	0	4,734,000	99,750,449
2021	34,897,000	18,250,797	8,713,827	19,700,000	3,483,271	4,934,634	2,350,420	2,666,499	0	4,734,000	99,750,449
2022	34,897,000	18,250,797	8,713,827	19,700,000	3,483,271	4,934,634	2,350,420	2,666,499	0	4,734,000	99,750,449
2023	34,897,000	18,250,797	8,713,827	19,700,000	3,483,271	4,934,634	2,350,420	2,666,499	0	4,734,000	99,750,449
2024	34,897,000	18,250,797	8,713,827	19,700,000	3,483,271	4,934,634	2,350,420	2,666,499	0	4,734,000	99,750,449
2025	34,897,000	18,250,797	8,713,827	19,700,000	3,483,271	4,934,634	2,350,420	2,666,499	0	4,734,000	99,750,449
2026	34,897,000	18,250,797	8,713,827	19,700,000	3,483,271	4,934,634	2,350,420	2,666,499	0	4,734,000	99,750,449
2027	34,897,000	18,250,797	8,713,827	19,700,000	3,483,271	4,934,634	121,420	0	0	4,734,000	94,854,950
2028	34,897,000	18,250,797	8,713,827	19,700,000	3,483,271	4,934,634	121,420	0	0	4,734,000	94,854,950
2029	34,897,000	18,250,797	8,713,827	19,700,000	3,483,271	4,934,634	121,420	0	0	4,734,000	94,854,950
2030	34,897,000	18,250,797	8,713,827	19,700,000	3,483,271	4,934,634	121,420	0	0	4,734,000	94,854,950
2031	34,897,000	18,250,797	8,713,827	19,700,000	3,483,271	4,934,634	121,420	0	0	4,734,000	94,854,950
2032	34,897,000	18,250,797	8,713,827	19,700,000	3,483,271	4,934,634	121,420	0	0	4,734,000	94,854,950
2033	34,897,000	18,250,797	8,713,827	19,700,000	3,483,271	4,934,634	121,420	0	0	4,734,000	94,854,950
2034	34,897,000	18,250,797	8,713,827	19,700,000	3,483,271	4,934,634	121,420	0	0	4,734,000	94,854,950
2035	34,897,000	18,250,797	8,713,827	19,700,000	3,483,271	4,934,634	121,420	0	0	4,734,000	94,854,950
2036	34,897,000	18,250,797	8,713,827	19,700,000	3,483,271	4,934,634	121,420	0	0	4,734,000	94,854,950
2037	34,897,000	18,250,797	8,713,827	19,700,000	3,483,271	4,934,634	121,420	0	0	4,734,000	94,854,950
2038	34,897,000	18,250,797	8,713,827	19,700,000	3,483,271	4,934,634	121,420	0	0	4,734,000	94,854,950
2039	34,897,000	18,250,797	8,713,827	19,700,000	3,483,271	4,934,634	121,420	0	0	4,734,000	94,854,950
2040	34,897,000	18,250,797	8,713,827	19,700,000	3,381,674	4,790,705	121,420	0	0	4,734,000	94,609,423
2041	34,897,000	18,250,797	8,713,827	19,700,000	3,381,674	4,790,705	121,420	0	0	4,734,000	94,609,423
2042	34,897,000	18,250,797	8,713,827	19,700,000	3,381,674	4,790,705	121,420	0	0	4,734,000	94,609,423
2043	34,897,000	18,250,797	8,713,827	19,700,000	3,381,674	4,790,705	121,420	0	0	4,734,000	94,609,423
2044	34,897,000	18,250,797	8,713,827	19,700,000	3,381,674	4,790,705	121,420	0	0	4,734,000	94,609,423
2045	34,897,000	18,250,797	8,713,827	19,700,000	3,381,674	4,790,705	121,420	0	0	4,734,000	94,609,423
2046	34,897,000	18,250,797	8,713,827	19,700,000	3,381,674	4,790,705	121,420	0	0	4,734,000	94,609,423
2047	34,897,000	18,250,797	8,713,827	19,700,000	3,381,674	4,790,705	121,420	0	0	4,734,000	94,609,423
2048	34,897,000	18,250,797	8,713,827	19,700,000	3,381,674	4,790,705	121,420	0	0	4,734,000	94,609,423
2049	34,897,000	18,250,797	8,713,827	19,700,000	3,381,674	4,790,705	121,420	0	0	4,734,000	94,609,423
2050	34,897,000	18,250,797	8,713,827	19,700,000	3,381,674	4,790,705	121,420	0	0	4,734,000	94,609,423
2051	34,897,000	18,250,797	8,713,827	19,700,000	3,381,674	4,790,705	121,420	0	0	4,734,000	94,609,423
2052	34,897,000	18,250,797	8,713,827	19,700,000	3,381,674	4,790,705	121,420	0	0	4,734,000	94,609,423
2053	34,897,000	18,250,797	8,713,827	19,700,000	3,381,674	4,790,705	121,420	0	0	4,734,000	94,609,423
2054	34,897,000	18,250,797	8,713,827	19,700,000	3,381,674	4,790,705	121,420	0	0	4,734,000	94,609,423
2055	34,897,000	18,250,797	8,713,827	19,700,000	3,381,674	4,790,705	121,420	0	0	4,734,000	94,609,423
2056	34,897,000	18,250,797	8,713,827	19,700,000	3,381,674	4,790,705	121,420	0	0	4,734,000	94,609,423
2057	34,897,000	18,250,797	8,713,827	19,700,000	3,381,674	4,790,705	121,420	0	0	4,734,000	94,609,423
2058	34,897,000	18,250,797	8,713,827	19,700,000	3,381,674	4,790,705	121,420	0	0	4,734,000	94,609,423
2059	34,897,000	18,250,797	8,713,827	19,700,000	3,381,674	4,790,705	121,420	0	0	4,734,000	94,609,423
2060	34,897,000	18,250,797	8,713,827	19,700,000	3,164,645	4,483,247	121,420	0	0	4,734,000	94,084,936
2061	34,897,000	18,250,797	8,713,827	19,700,000	3,161,187	4,478,348	121,420	0	0	4,734,000	94,076,578
2062	34,897,000	18,250,797	8,713,827	19,700,000	3,157,296	4,472,835	121,420	0	0	4,734,000	94,067,175
2063	34,897,000	18,250,797	8,713,827	19,700,000	3,153,837	4,467,936	121,420	0	0	4,734,000	94,058,817
2064	34,897,000	18,250,797	8,713,827	19,700,000	3,150,811	4,463,048	121,420	0	0	4,734,000	94,051,503
2065	34,897,000	18,250,797	8,713,827	19,700,000	3,147,352	4,458,749	121,420	0	0	4,	

APPENDIX G (FEDERAL REGISTER NOTICE)
March 1991

DEPARTMENT OF ENERGY

Western Area Power Administration

Proposed Power Rate Adjustment - Pick-Sloan Missouri Basin Program

AGENCY: Western Area Power Administration, DOE.

ACTION: Notice of Proposed Power Rate Adjustment - Pick-Sloan Missouri Basin Program.

SUMMARY: The fiscal year (FY) 1990 power repayment study (PRS) for the Pick-Sloan Missouri Basin Program (P-SMBP) shows that existing power rates are not adequate to meet repayment requirements. To meet those requirements the composite rate for firm power is proposed to be increased in FY 1992 by 1.39 mills/kilowatthour (kWh). A FY 1991 PRS which incorporates certain assumed values has also been completed and indicates the need for an additional increase in the composite rate of 0.91 mills/kWh in FY 1993. The Western Area Power Administration (Western) is proposing to seek approval of a two-step rate adjustment. The first step will be based on the FY 1990 PRS and the second step will be based on a FY 1991 PRS.

The Eastern Division (ED) and Western Division (WD) of the P-SMBP will each adjust their respective revenues to meet the required increases. The rate to provide revenue for the combined P-SMBP-WD and Fryingpan-Arkansas Project (Fry-Ark) is designated as the Loveland Area Projects (LAP) rate. The LAP rate will include the P-SMBP-WD revenue requirement combined with the revenue requirement for the Fry-Ark, and a blended rate will be designed.

The proposed rate increase reflects: (1) changes of the future projections of operation and maintenance expenses, (2) increased deficits, and (3) the inclusion of purchased power expenses and reduced surplus sales revenues for 5 future years to reflect continuing drought conditions.

Eastern Division

The Eastern Division proposed rate adjustment would, over 2 years, increase the overall capacity charge for firm power service by \$0.49/kilowatt-month (kW-month) and increase the overall energy charge by 1.52 mills/kWh. There is no change proposed to the existing 3.38 mills/kWh additional charge for firm energy in excess of 60 percent monthly load factor because the regional cost of energy has remained relatively stable over the past several years, and is expected to increase only slightly in the near future. Over 2 years, the proposed rate adjustment would also increase the peaking capacity charge by \$2.94/kW-season and any energy associated with peaking power deliveries by 1.52 mills/kWh. The table below summarizes the proposed changes in rates.

P-SMBP-ED

(Rate Changes)

<u>Class of Power</u>	<u>Existing Rate</u> (FY 1991)	<u>Proposed Rate</u> (FY 1992) (FY 1993)	
Firm Power Service:			
Firm capacity (kW)	\$ 2.25/kW-month	\$ 2.57/kW-month	\$ 2.74/kW-month
Firm energy (kWh)	5.57 mills/kWh	6.49 mills/kWh	7.09 mills/kWh
Composite mills/kWh	9.86	11.25	12.16
Additional charge for firm energy in excess of 60-percent monthly load factor	3.38 mills/kWh	3.38 mills/kWh	3.38 mills/kWh
Firm Peaking			
Power Service:			
Peaking	\$13.50/kW-season	\$15.42/kW-season	\$16.44/kW-season
Capacity (kW)			
Peaking energy (kWh)	5.57 mills/kWh	6.49 mills/kWh	7.09 mills/kWh

Western Division

A separate rate adjustment to the LAP rate will be processed by Western's Loveland Area Office which will include the revenue requirements for the Western Division shown below:

<u>P-SMBP WESTERN DIVISION</u>	<u>(FY 1992)</u>	<u>(FY 1993)</u>
Existing Revenue Requirement	\$23,271,480	\$26,101,520
Additional Revenue Requirement	<u>\$ 2,830,040</u>	<u>\$ 1,852,760</u>
New P-SMBP-Western Division Revenue Requirement	\$26,101,520	\$27,954,280
<u>FRYINGPAN-ARKANSAS PROJECT</u>		
Fryingpan-Arkansas Revenue Requirements	<u>\$13,933,200</u>	<u>\$13,933,200</u>
Total LAP Revenue Requirements	\$40,034,720	\$41,887,480

FURTHER INFORMATION: A brochure explaining the need for a rate increase will be distributed to all P-SMBP customers and other interested parties shortly after publication of this notice. Public information and public comment forums will be held in accordance with procedures for public participation in general rate adjustments (10 CFR 903). Following completion of the consultation and comment period and review of public comments, Western will develop the proposed rates and submit them to the Deputy Secretary of Energy to be placed in effect on an interim basis pending final approval by the Federal Energy Regulatory Commission (FERC). It is anticipated that the first step of the rates will be placed in effect on the first day of the first full billing period beginning on or after October 1, 1991, and the second on the first day of the first full billing period beginning on or after October 1, 1992.

Data, studies, reports, and other documents used in developing the proposed rates are available for inspection and/or copying in Western's Billings Area Office. Written comments and requests for information may also be submitted to the following address throughout the entire consultation and comment period:

Mr. James D. Davies
Area Manager
Billings Area Office
Western Area Power Administration
P.O. Box 35800
Billings, MT 59107-5800
Telephone: (406) 657-6532

DATES: The consultation and comment period will begin with the publication of this notice in the FEDERAL REGISTER and will end not less than 90 days later or on June 1, 1991, whichever is the later.

Public information forums, during which Western will explain the need for the proposed rate increase and answer questions, will be held at the following places and times:

March 25, 1991 - 9:00 a.m. - Sheraton Hotel, Billings, MT
March 25, 1991 - 2:00 p.m. - Holiday Inn, Northglenn, CO
March 26, 1991 - 8:00 a.m. - Holiday Inn Airport, Sioux Falls, SD
March 26, 1991 - 1:30 p.m. - Holiday Inn, Fargo, ND

Public comment forums, during which comments for the record concerning the proposed rate increase will be accepted, will be conducted at the following places and times:

April 16, 1991 - 9:00 a.m. - Holiday Inn, Northglenn, CO
April 17, 1991 - 2:00 p.m. - Ramkota Inn Airport, Sioux Falls, SD

Individuals planning to speak at either the March or April forums are requested to send their names and organization affiliation to the Billings Area Office address noted above 1 week before each meeting so a speaker list can be prepared. Other individuals will be allowed to comment after the individuals requesting time have spoken.

SUPPLEMENTARY INFORMATION: Power rates for the P-SMBP are established pursuant to the Department of Energy (DOE) Organization Act, 42 U.S.C. 7101, et seq.; the Reclamation Act, 43 U.S.C. 372, et seq., as amended and supplemented by subsequent enactments, particularly section 9(c) of the Reclamation Project Act of 1939, 43 U.S.C. 485h(c); section 9 of the Flood Control Act of 1944, 58 Stat. 887; and other acts specifically applicable to the project system involved.

By Delegation Order No. 0204-108, effective December 14, 1983 (48 FR 55664), as amended May 30, 1986 (51 FR 19744), reassigned by DOE Notice 1110.29 dated October 27, 1988, and clarified by Secretary of Energy Notice SEN-10-89 dated August 3, 1989, and subsequent revisions, the Secretary of Energy delegated: (1) the authority, on a nonexclusive basis, to develop long-term power and transmission rates to the Administrator of Western; (2) the authority to confirm, approve, and place such rates in effect on an interim basis to the Deputy Secretary of DOE; (3) and the authority to confirm, approve, and place in effect on a final basis, to remand, or to disapprove such rates to the FERC. Existing DOE procedures for public participation in power rate adjustments (10 CFR Part 903) became effective on September 18, 1985 (50 CFR 37835). Power rate adjustments for the P-SMBP firm power rate are conducted consistent with 10 CFR Part 903.

Environmental Compliance

In compliance with the National Environmental Policy Act of 1969 (NEPA), 42 U.S.C. 4321, et seq., Council on Environmental Quality Regulations (40 CFR Parts 1500-1508), and DOE guidelines published in the FEDERAL REGISTER on December 15, 1987 (52 FR 47662), Western will evaluate the proposed rate adjustment and prepare the appropriate documentation of NEPA compliance.

Regulatory Flexibility Analysis

Pursuant to the Regulatory Flexibility Act of 1980, 5 U.S.C. 601, et seq., to publish a proposed rule, Western is required to prepare

and make available for public comment an initial regulatory flexibility analysis to describe the impact of the proposed rule on small entities. In this instance, the rate adjustment for P-SMBP relates to nonregulatory services provided by Western at a particular rate. Under 5 U.S.C. 601(2), rates or services of particular applicability are not considered rules within the meaning of the Act. Since the rate for P-SMBP power is of limited applicability and is being set in accordance with specific regulations and legislation under particular circumstances, Western believes that no flexibility analysis is required.


Paperwork Reduction Act of 1980

The Paperwork Reduction Act of 1980, 44 U.S.C. 3501-3520, requires that certain information collection requirements be approved by the Office of Management and Budget (OMB) before information is demanded of the public. OMB has issued a final rule on the Paperwork Burdens on the Public (48 FR 13666) dated March 31, 1983. Ample opportunity is provided pursuant to this FEDERAL REGISTER notice for the interested public to participate in the development of the P-SMBP rate. There is no requirement that members of the public participating in the development of the P-SMBP rate supply information about themselves to the Government. It follows that the P-SMBP rates are exempt from the Paperwork Reduction Act.

Determination Under Executive Order 12291

The DOE has determined that this is not a major rule because it does not meet the criteria of section 1(b) of Executive Order 12291, 46 FR 13193 (February 19, 1981). Western has an exemption from sections 3, 4, and 7 of Executive Order 12291.

Issued at Golden, Colorado, March 1, 1991.


William H. Clagett
Administrator



